

=> file reg

FILE 'REGISTRY' ENTERED AT 15:40:33 ON 22 JUL 2003

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STRUCTURE FILE UPDATES: 21 JUL 2003 HIGHEST RN 552272-14-7

DICTIONARY FILE UPDATES: 21 JUL 2003 HIGHEST RN 552272-14-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file capl

FILE 'CAPLUS' ENTERED AT 15:40:36 ON 22 JUL 2003

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FILE COVERS 1907 - 22 Jul 2003 VOL 139 ISS 4

FILE LAST UPDATED: 21 Jul 2003 (20030721/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file wpix

FILE 'WPIX' ENTERED AT 15:40:40 ON 22 JUL 2003

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FILE 'TEXTILETECH' ENTERED AT 15:41:23 ON 22 JUL 2003  
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FILE LAST UPDATED: 5 MAY 2003 <20030505/UP>  
FILE COVERS 1978 TO DATE.

=> d his

(FILE 'HOME' ENTERED AT 12:09:15 ON 22 JUL 2003)

FILE 'CAPLUS' ENTERED AT 12:23:48 ON 22 JUL 2003

L1 26 S BRIER M?/AU  
L2 1 S L1 AND FABRIC/TI  
L3 477519 S (COTTON OR FABRIC? OR CLOTHING OR TEXTILE? OR POLYESTER?)/IT  
L4 477519 S L3 OR COTTON(W) (FIBER OR FIBRE)/IT  
L5 13918 S 40-9/CC OR D06M010?/IC  
L6 480330 S L5 OR L4  
L7 3317 S FABRIC(W) (FINISH? OR TREAT?)/IT  
L8 246489 S (COATING MATERIALS OR ANTIMICROBIAL AGENTS)/IT  
L9 1784 S (3380-34-5 OR 412046-27-6 OR 412046-28-7)/RN  
L10 1269 S TRICLOSAN OR MARPEL FC OR MARPEL SG OR APEX WATERPROOFER 253  
L11 22 S (BLEACH? OR FADE? OR WHITEN?) AND (WATER PROOF? OR WATER(3A)R  
L12 31937 S L6 AND (L7-L10)  
L13 2 S L12 AND L11  
L14 509 S L12 AND (BLEACH? OR FADE? OR WHITEN?)  
L15 1501 S (BLEACH? OR FADE? OR WHITEN?) AND (WATER PROOF? OR WATER(3A)R

FILE 'WPIX' ENTERED AT 13:15:42 ON 22 JUL 2003

L36 464 S TRICLOSAN OR MARPEL FC OR MARPEL SG OR APEX WATERPROOFER 253  
L37 479354 S COTTON OR FABRIC? OR CLOTHING OR TEXTILE? OR POLYESTER?  
L38 170 S (BLEACH? OR FADE? OR WHITEN?) AND HEAT? AND (WATER(3A)RESIS?  
L39 179 S (BLEACH? OR FADE? OR WHITEN?) AND HEAT? AND (WATER(3A)RESIS?  
L40 38076 S ANTI(4A) (BACTERIA? OR MICROBIA? OR STAIN) OR FUNGICI? OR BACT  
L41 2 S L39 AND L40  
L42 60 S L36 AND L37  
L43 1 S L42 AND L39  
L44 0 S L42 AND COTTON(4A) (TREAT? OR FINISH?)  
L45 1584 S COTTON(4A) (TREAT? OR FINISH?)  
L46 0 S L45 AND L36  
L47 2 S L45 AND L38  
L48 46 S L45 AND L40  
L49 101 S L45 AND (WATER(3A)RESIS? OR WATERPROOF? OR WATER(4A)REPEL?)  
L50 46 S L45 AND (ANTI(4A) (BACTERIA? OR MICROBIA? OR STAIN) OR FUNGICI  
L51 302 S L45 AND HEAT?  
L52 4 S L51 AND (ANTI(4A) (BACTERIA? OR MICROBIA? OR STAIN) OR FUNGICI  
L53 25 S L36 AND (COTTON? OR TEXTILE)  
L54 1 S L53 AND (BLEACH? OR FADE? OR WHITEN?) AND HEAT?  
L55 73 S L47 OR L50 OR L52 OR L53 OR L54  
L56 60 S L55 AND COTTON?  
L57 9 S L56 AND HEAT?

FILE 'COMPENDEX' ENTERED AT 13:45:17 ON 22 JUL 2003

L58 1 S L57

FILE 'JICST-EPLUS' ENTERED AT 13:45:47 ON 22 JUL 2003

L59 1 S L57

FILE 'WTEXTILES' ENTERED AT 13:46:42 ON 22 JUL 2003

L60 1 S L57

FILE 'TEXTILETECH' ENTERED AT 13:47:42 ON 22 JUL 2003

L61 0 S L57

FILE 'CAPLUS, WPIX, COMPENDEX, JICST-EPLUS, WTEXTILES' ENTERED AT  
13:49:07 ON 22 JUL 2003

L62 31 DUP REM L\*\*\* L57 L58 L59 L60 (2 DUPLICATES REMOVED)  
SAV CCAMERON495/A L62

FILE 'CAPLUS' ENTERED AT 14:15:47 ON 22 JUL 2003

L63 22 S L12 AND (BLEACH? OR FADE? OR WHITEN?) AND (ANTI(4A) (MICROBIAL  
L64 4 S L63 AND HEAT?  
L65 3562 S L12 AND (WATERPROOF? OR HYDROPHOB? OR WATER(3A) RESIS? OR WATE  
L66 0 S L65 AND HEAT AND (BLEACH? OR FADE? OR WHITEN?) AND (ANTI(4A) (  
L67 14 S L65 AND (L9 OR L10)  
L68 9 S L63 AND (L9 OR L10)  
L69 22 S L67 OR L68  
L70 683726 S L3 OR FABRIC? OR CLOTH?  
L71 683726 S L70 OR L4  
L72 0 S L71 AND (BLEACH OR WHITEN?) AND HEAT AND (ANTI(4A) (MICROBIAL  
L73 265 S L71 AND (L9 OR L10)  
L74 3 S L73 AND HEAT? AND BLEACH?  
L75 5 S L73 AND WATERPROOF?  
L76 23 S L74 OR L75 OR L69

FILE 'WPIX, COMPENDEX, JICST-EPLUS, WTEXTILES, CAPLUS' ENTERED AT  
14:51:57 ON 22 JUL 2003

L77 33 DUP REM L57 L58 L59 L60 L76 (2 DUPLICATES REMOVED)  
SAV CAMERON495/A L77

FILE 'TEXTILETECH' ENTERED AT 15:03:13 ON 22 JUL 2003

FILE 'CAPLUS, WPIX, COMPENDEX, JICST-EPLUS, WTEXTILES' ENTERED AT  
15:06:34 ON 22 JUL 2003

L78 33 DUP REM L76 L57 L58 L59 L60 (2 DUPLICATES REMOVED)

FILE 'CAPLUS' ENTERED AT 15:07:39 ON 22 JUL 2003

L79 127459 S NYLON OR POLYAMIDES/IT  
L80 771193 S L71 OR L79  
L81 57 S L80 AND HEAT AND (WATERPROOF? OR WATER(3A) RESIST? OR WATER(3A  
L82 68 DUP REM L81 L57 L58 L59 L60 (1 DUPLICATE REMOVED)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 15:37:08 ON 22 JUL 2003

FILE 'CAPLUS' ENTERED AT 15:37:13 ON 22 JUL 2003

FILE 'WPIX' ENTERED AT 15:37:18 ON 22 JUL 2003

FILE 'COMPENDEX' ENTERED AT 15:37:26 ON 22 JUL 2003

FILE 'JICST-EPLUS' ENTERED AT 15:37:32 ON 22 JUL 2003

FILE 'WTEXTILES' ENTERED AT 15:37:40 ON 22 JUL 2003

FILE 'TEXTILETECH' ENTERED AT 15:37:50 ON 22 JUL 2003  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 15:40:33 ON 22 JUL 2003

FILE 'CAPLUS' ENTERED AT 15:40:36 ON 22 JUL 2003

FILE 'WPIX' ENTERED AT 15:40:40 ON 22 JUL 2003

FILE 'COMPENDEX' ENTERED AT 15:40:48 ON 22 JUL 2003

FILE 'JICST-EPLUS' ENTERED AT 15:40:53 ON 22 JUL 2003

FILE 'WTEXTILES' ENTERED AT 15:41:11 ON 22 JUL 2003

FILE 'TEXTILETECH' ENTERED AT 15:41:23 ON 22 JUL 2003

=> d que

L3 477519 SEA FILE=CAPLUS ABB=ON PLU=ON (COTTON OR FABRIC? OR CLOTHING  
OR TEXTILE? OR POLYESTER?)/IT

L4 477519 SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR COTTON(W) (FIBER OR  
FIBRE)/IT

L36 464 SEA FILE=WPIX ABB=ON PLU=ON TRICLOSAN OR MARPEL FC OR MARPEL  
SG OR APEX WATERPROOFER 253

L38 170 SEA FILE=WPIX ABB=ON PLU=ON (BLEACH? OR FADE? OR WHITEN?)  
AND HEAT? AND (WATER(3A)RESIS? OR WATERPROOF OR WATER(4A)REPEL?  
)

L45 1584 SEA FILE=WPIX ABB=ON PLU=ON COTTON(4A) (TREAT? OR FINISH?)

L47 2 SEA FILE=WPIX ABB=ON PLU=ON L45 AND L38

L50 46 SEA FILE=WPIX ABB=ON PLU=ON L45 AND (ANTI(4A) (BACTERIA? OR  
MICROBIA? OR STAIN) OR FUNGICI? OR BACTERIC?)

L51 302 SEA FILE=WPIX ABB=ON PLU=ON L45 AND HEAT?

L52 4 SEA FILE=WPIX ABB=ON PLU=ON L51 AND (ANTI(4A) (BACTERIA? OR  
MICROBIA? OR STAIN) OR FUNGICI? OR BACTERIC?)

L53 25 SEA FILE=WPIX ABB=ON PLU=ON L36 AND (COTTON? OR TEXTILE)

L54 1 SEA FILE=WPIX ABB=ON PLU=ON L53 AND (BLEACH? OR FADE? OR  
WHITEN?) AND HEAT?

L55 73 SEA FILE=WPIX ABB=ON PLU=ON L47 OR L50 OR L52 OR L53 OR L54

L56 60 SEA FILE=WPIX ABB=ON PLU=ON L55 AND COTTON?

L57 9 SEA FILE=WPIX ABB=ON PLU=ON L56 AND HEAT?

L58 1 SEA FILE=COMPENDEX ABB=ON PLU=ON L56 AND HEAT?

L59 1 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L56 AND HEAT?

FILE LAST UPDATED: 19 JUL 2003 <20030719/UP>  
MOST RECENT DERWENT UPDATE: 200346 <200346/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS <<<

>>> SLART (Simultaneous Left and Right Truncation) is now  
available in the /ABEX field. An additional search field  
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,  
SEE <http://www.derwent.com/dwpi/updates/dwpicov/index.html> <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
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GUIDES, PLEASE VISIT:  
[http://www.derwent.com/userguides/dwpi\\_guide.html](http://www.derwent.com/userguides/dwpi_guide.html) <<<

=> file compendex

FILE 'COMPENDEX' ENTERED AT 15:40:48 ON 22 JUL 2003  
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FILE LAST UPDATED: 21 JUL 2003 <20030721/UP>  
FILE COVERS 1970 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN  
THE BASIC INDEX >>>

=> file jicst

FILE 'JICST-EPLUS' ENTERED AT 15:40:53 ON 22 JUL 2003  
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FILE COVERS 1985 TO 21 JUL 2003 (20030721/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED  
TERM (/CT) THESAURUS RELOAD.

=> file wtextiles

FILE 'WTEXTILES' ENTERED AT 15:41:11 ON 22 JUL 2003  
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FILE LAST UPDATED: 17 JUL 2003 <20030717/UP>  
FILE COVERS 1970 TO DATE.

=> file textiletech

L60 1 SEA FILE=WTEXTILES ABB=ON PLU=ON L56 AND HEAT?  
 L70 683726 SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR FABRIC? OR CLOTH?  
 L71 683726 SEA FILE=CAPLUS ABB=ON PLU=ON L70 OR L4  
 L79 127459 SEA FILE=CAPLUS ABB=ON PLU=ON NYLON OR POLYAMIDES/IT  
 L80 771193 SEA FILE=CAPLUS ABB=ON PLU=ON L71 OR L79  
 L81 57 SEA FILE=CAPLUS ABB=ON PLU=ON L80 AND HEAT AND (WATERPROOF?  
 OR WATER(3A)RESIST? OR WATER(3A)REPEL?) AND (BLEACH? OR  
 WHITEN? OR FADE)  
 L82 68 DUP REM L81 L57 L58 L59 L60 (1 DUPLICATE REMOVED)

=> d all 182 1-68

YOU HAVE REQUESTED DATA FROM FILE 'WPIX, COMPENDEX, JICST-EPLUS, CAPLUS' -  
 CONTINUE? (Y)/N:y

L82 ANSWER 1 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:154663 CAPLUS  
 DN 138:189363  
 TI Methods and systems for drying lipophilic fluid-containing **fabrics**  
 IN France, Paul Amaat Raymond Gerald; Noyes, Anna Vadimovna  
 PA The Procter & Gamble Company, USA  
 SO PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM D06L001-02  
 ICS D06L001-08  
 CC 40-9 (Textiles and Fibers)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003016610	A2	20030227	WO 2002-US25887	20020814
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2001-312406P P 20010815

AB A method for drying lipophilic fluid-contg. **fabric** articles  
 comprises a step selected from the group consisting of: a. adding a high  
 vapor pressure co-solvent to the lipophilic fluid prior to contacting the  
**fabric** articles with the lipophilic fluid; b. adding **heat**  
 to the lipophilic fluid prior to contacting the **fabric** articles  
 with the lipophilic fluid; c. subjecting the lipophilic fluid-contg.

**fabric** articles to **heat**; d. subjecting the lipophilic fluid-contg. **fabric** articles to a vacuum; e. subjecting the lipophilic fluid-contg. **fabric** articles to a **fabric** article spin velocity of at least 200 G; f. subjecting the lipophilic fluid-contg. **fabric** articles to a high vapor pressure co-solvent; and g. mixts. thereof.

ST lipophilic fluid contg **fabric** drying

IT Alcohols, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(C2-3, high vapor pressure co-solvent; methods and systems for drying lipophilic fluid-contg. **fabrics**)

IT Brightening  
Creaseproofing  
(agents; methods and systems for drying lipophilic fluid-contg. **fabrics**)

IT Dyes  
(fixatives; methods and systems for drying lipophilic fluid-contg. **fabrics**)

IT Ethers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(hydrofluoro, high vapor pressure co-solvent; methods and systems for drying lipophilic fluid-contg. **fabrics**)

IT **Textiles**  
(lipophilic fluid-contg.; methods and systems for drying lipophilic fluid-contg. **fabrics**)

IT Antibacterial agents  
Antistatic agents  
**Bleaching** agents  
Drying  
Emulsifying agents  
**Fabric** softeners  
Heating  
Perfumes  
Sunscreens  
**Waterproofing** agents  
(methods and systems for drying lipophilic fluid-contg. **fabrics**)  
)

IT Cyclosiloxanes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(methods and systems for drying lipophilic fluid-contg. **fabrics**)  
)

IT 64-17-5, Ethanol, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(high vapor pressure co-solvent; methods and systems for drying lipophilic fluid-contg. **fabrics**)

L82 ANSWER 2 OF 68 COMPENDEX COPYRIGHT 2003 EEI on STN DUPLICATE 1

AN 2003(13):7862 COMPENDEX

TI Antimicrobial protection of **cotton** and **cotton** /polyester fabrics by radiation and thermal treatments. I. Effect of ZnO formulation on the mechanical and dyeing properties.

AU El-Naggar, A.M. (Department of Radiation Chemistry Natl. Ctr. Radiation

Res. Technol., Nasr City, Cairo, Egypt); Zohdy, M.H.; Hassan, M.S.; Khalil, E.M.

SO Journal of Applied Polymer Science v 88 n 5 May 2 2003 2003.p 1129-1137  
CODEN: JAPNAB ISSN: 0021-8995

PY 2003

DT Journal

TC Experimental

LA English

AB Cotton and cotton/polyester fabrics were treated against microbial attack by applying a formulation based essentially on ZnO under high-energy radiation and thermal curing. To achieve the homogeneity and the reactivity of the treating formulation, a binder (Impron MTP) and a dispersing agent (Setamol WS) were used with ZnO. The antimicrobial property of the fabrics was evaluated, in terms of mechanical properties, by a soil burial test. Moreover, the effect of antimicrobial finishing on the dyeing properties in terms of color strength was investigated. It was found that the best composition that affords the best anti-microbial protection to cotton fabrics contains 2% ZnO, 2% binder, and 1% dispersing agents. For the cotton/polyester blend, the best results were achieved at the same conditions except the ZnO was 1%. It was found that the treatment under the effect of electron-beam irradiation is better than that of gamma irradiation and thermal curing. The results showed that when the finishing process was carried out before dyeing with a reactive dye, it affects the color strength rather than performing the finishing after the dyeing process. 17 Refs.

CC 819.4 Fiber Products; 821.4 Agricultural Products; 819.5 Textile Products and Processing; 815.1.1 Organic Polymers; 622.2 Radiation Effects; 537.1 Heat Treatment Processes

CT \*Fabrics; Polymer blends; Radiation effects; Heat treatment; Dyeing; Curing; Composition; Cotton; Cotton fabrics; Polyesters

ST Antimicrobial protection; Radiation treatments; Thermal curing; High energy radiation

ET O\*Zn; ZnO; Zn cp; O cp; I

L82 ANSWER 3 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:547187 CAPLUS

DN 137:110243

TI Optical films with improved adhesion and excellent water resistance and recyclability

IN Taki, Hiroshi; Morishige, Chikao; Higashiura, Shinya; Sato, Masayoshi; Mizuno, Naoki; Matsuoka, Mikio

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-36

ICS B32B007-02; C08K007-16; C08L033-00; C08L067-00; C09J007-02

CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 73



FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002205365	A2	20020723	JP 2001-2665	20010110
PRAI	JP 2001-2665		20010110		

AB The films with good **whitening** resistance after processing consist of a biaxially stretched polyester base film not contg. particles and .gtoreq.1 coating layer contg. particles, where the base film has .ltoreq.10/m2 foreign matters, i.e., raised portions with height .gtoreq.1 .mu.m and max. diam. .gtoreq.20 .mu.m and depressed portions placed .ltoreq.100 .mu.m of the raised portions and depth .gtoreq.0.5 .mu.m, **water resistance** value of the coated films is .gtoreq.90, discoloration value is .ltoreq.10 after melt molding, and haze change is .ltoreq.20% after heating. Thus, 211 parts 1,4-butanediol and 270 parts ethylene glycol were transesterified with 345 parts di-Me terephthalate and further esterified with 14 parts fumaric acid and 160 parts sebacic acid to give a polyester, 75 parts of which was treated with 15 parts maleic anhydride and 10 parts styrene in MEK/Me2CHOH in presence of azobisdimethylvaleronitrile, mixed with MeOH, further mixed with H2O and Et3N, and freed of MEK, Me2CHOH, and excess Et3N to give a H2O-dispersible graft resin. A particle-free PET film was both-side coated with an aq. dispersion of the graft resin contg. Me2CHOH, anionic surfactant, propionic acid, and colloidal SiO2 (Snowtex OL), dried at 130.degree., stretched, and **heat-set** to give a product showing cross-cut adhesion to a hard coating 100/100, good **water resistance**, the haze change 8.3%, and good recyclability.

ST optical PET film adhesion improvement; recyclable PET film graft polyester coating; **water resistance** polyester film optical

IT Coating materials  
Optical films  
Recycling of plastics and rubbers  
(coated **polyester** optical films with good adhesion, **water resistance**, and recyclability)

IT **Polyesters**, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coated **polyester** optical films with good adhesion, **water resistance**, and recyclability)

IT Adhesion, physical  
(improvement of; coated **polyester** optical films with good adhesion, **water resistance**, and recyclability)

IT 25038-59-9P, Ethylene glycol-terephthalic acid copolymer, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coated **polyester** optical films with good adhesion, **water resistance**, and recyclability)

IT 7631-86-9, Snowtex OL, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(colloidal; coated **polyester** optical films with good adhesion, **water resistance**, and recyclability)

IT 443293-82-1P 443293-86-5P  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)  
(crosslinked; coated **polyester** optical films with good  
adhesion, **water resistance**, and recyclability)

L82 ANSWER 4 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:407053 CAPLUS

DN 136:403103

TI Manufacture of **water-repellent** hygroscopic  
**fabrics** by treating one side of **fabrics** with  
**waterproofing** agents, laminating two of the treated **fabric**  
and treating the untreated sides of the laminated **fabrics** with  
plasma radiation

IN Kashiwabara, Toru; Nanba, Masami

PA Kanebo, Ltd., Japan; Kanebo Fiber Glass Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-277

ICS D06B019-00; D06M010-02

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002155470	A2	20020531	JP 2000-347639	20001115
PRAI	JP 2000-347639		20001115		

AB **Water-resistant** hygroscopic **fabrics** are  
prepd. by treating one side of **fabrics** with  
**waterproofing** agents, adhering together two treated sides of the  
**fabrics** and treating the two untreated exterior sides of the  
laminated **fabrics** with plasma radiation. A woven cotton twill  
was scoured, **bleached**, mercerized, dyed, treated with a soln.  
contg. 50 g/L Asahiguard AG-415 (F-contg. **water**  
**repellent**) and 30 g/L Meikanate MF (blocked isocyanate) to pickup  
65%, dried, and **heat-treated** 3 min at 150.degree.. Two of the  
treated **fabric** were laminated and exposed to plasma radiation on  
the untreated sides for 90 s at 7 kW to give a **fabric** showing  
**water repellency** rating (JIS L-1092) 5 initially and 3  
after 10 washings and water absorption value (JIS L-1907-B) 43 and  
exhibiting good retention of handle.

ST cotton **fabric water resistant** hygroscopicity  
enhancement; textile **water resistant** hygroscopicity  
enhancement; plasma radiation treatment **water resistant**  
cotton **fabric** hygroscopicity enhancement

IT **Textiles**

(cotton; manuf. of **water-repellent**  
hygroscopic **fabrics** by treating one side of **fabrics**  
with **waterproofing** agents, laminating two of the treated  
**fabric** and treating the untreated sides of the laminated  
**fabrics** with plasma radiation)

IT Wettability

(enhancement of; manuf. of **water-repellent**

*✓ ref at least*

hygroscopic **fabrics** by treating one side of **fabrics** with **waterproofing** agents, laminating two of the treated **fabric** and treating the untreated sides of the laminated **fabrics** with plasma radiation)

IT **Textiles**

**Water-resistant materials**

**Waterproofing**

(manuf. of **water-repellent** hygroscopic **fabrics** by treating one side of **fabrics** with **waterproofing** agents, laminating two of the treated **fabric** and treating the untreated sides of the laminated **fabrics** with plasma radiation)

IT **Plasma**

(treatment by; manuf. of **water-repellent** hygroscopic **fabrics** by treating one side of **fabrics** with **waterproofing** agents, laminating two of the treated **fabric** and treating the untreated sides of the laminated **fabrics** with plasma radiation)

IT **Fluoropolymers, uses**

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(**water repellents**; manuf. of **water-repellent** hygroscopic **fabrics** by treating one side of **fabrics** with **waterproofing** agents, laminating two of the treated **fabric** and treating the untreated sides of the laminated **fabrics** with plasma radiation)

IT 431905-98-5

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(**water repellent**; manuf. of **water-repellent** hygroscopic **fabrics** by treating one side of **fabrics** with **waterproofing** agents, laminating two of the treated **fabric** and treating the untreated sides of the laminated **fabrics** with plasma radiation)

L82 ANSWER 5 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:293207 CAPLUS

DN 136:326916

TI Finishing nonwoven **fabrics** comprising cellulosic fibers for **water-repellent** colored nonwoven **fabrics** by treating the nonwoven **fabrics** with aqueous dispersions containing pigments, synthetic rubber latexes containing amphoteric structure or polymer emulsions and pefluoroalkyl group-containing **water repellents**

IN Fukuda, Jiro

PA Nisshin Spinning Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-256

ICS D04H001-46; D04H003-03; D06M015-19; D06M015-693; D06M101-06

CC 40-9 (Textiles and Fibers)  
Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002115181	A2	20020419	JP 2000-349547	20001116
PRAI	JP 2000-233395	A	20000801		

AB The **water-repellent** colored nonwoven **fabrics** are prepd. by treating nonwoven **fabrics** (A) comprising cellulosic fibers manufd. by the spun-less method, with aq. dispersions contg. pigments, synthetic rubber latexes contg. amphoteric structure and/or polymer emulsions, and **water repellents** contg. perfluoroalkyl groups, or the **water-repellent** colored nonwoven **fabrics** are prepd. by first treating A **fabrics** with aq. dispersions contg. pigments and synthetic rubber latexed contg. amphoteric structure and/or polymer emulsions and subsequently treating the nonwoven **fabrics** with aq. dispersions contg. **water repellents** contg. perfluoroalkyl groups. The nonwoven **fabrics** are useful for wiping cloths, hygienic materials, undergarments, and surgical gowns. A **bleached** cotton nonwoven **fabric** was padded with an aq. dispersion contg. Accostar C-122 (binder) 1.0, SA Color Blue DY-120 (pigment) 0.2, and Paraguard L-88 (F-contg. **water repellent**) 0.5% (effective component) to pickup 110% and **heat-treated** 2 min at 160.degree. to give a colored **water-repellent fabric** exhibiting **water repellency** rating 5, tensile strength 11.4 and 10.8 kg/5 cm, resp., in the machine and transverse directions, and elongation at break 40 and 66%, resp., in the machine and transverse directions and showing no color nonleveling due to the pigment migration.

ST cotton nonwoven **fabric water repellent** colored manufg; cellulosic fiber nonwoven **fabric** colored **water repellent** manufg; wiping cloth cellulosic fiber nonwoven **fabric** colored **water repellent**; surgical gown cellulosic fiber nonwoven **fabric** colored **water repellent**; hygienic material cellulosic fiber nonwoven **fabric** colored **water repellent**; undergarment cellulosic fiber nonwoven **fabric** colored **water repellent**

IT Styrene-butadiene rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Accostar C 122; finishing nonwovens comprising cellulosic fibers with aq. dispersions contg. pigments, rubber or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwovens)

IT Synthetic rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Acrylic polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(binders; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Nonwoven **fabrics**  
(cellulosic; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Nonwoven **fabrics**  
(cotton; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Polymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsions, binders; finishing nonwovens comprising cellulosic fibers with aq. dispersions contg. pigments, rubber or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwovens)

IT Coloring  
Pigments, nonbiological  
**Water-resistant** materials  
(finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT **Waterproofing**  
(finishing nonwovens comprising cellulosic fibers with aq. dispersions contg. pigments, rubber or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwovens)

IT Medical goods  
(gowns; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Medical goods  
(hygienic materials; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT **Clothing**  
(medical gowns; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT **Clothing**

(underwear; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT Household furnishings

(wiping **cloths**; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT 82800-89-3, Voncoat SFC 54

RL: TEM (Technical or engineered material use); USES (Uses)  
(binder; finishing nonwoven **fabrics** comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber latexes or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwoven **fabrics**)

IT 9003-55-8

RL: TEM (Technical or engineered material use); USES (Uses)  
(styrene-butadiene rubber, Accostar C 122; finishing nonwovens comprising cellulosic fibers with aq. dispersions contg. pigments, rubber or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwovens)

IT 412929-69-2, Paraguard L 88

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(**water repellent**; finishing nonwovens comprising cellulosic fibers with aq. dispersions contg. pigments, synthetic rubber or polymer emulsions and perfluoroalkyl group-contg. compds. for **water-repellent** colored nonwovens)

L82 ANSWER 6 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:237019 CAPLUS

DN 136:264460

TI Ink-jet printing reactive-dyeable **fabrics** with patterns in black and mixed color shades by printing the **fabrics** with reactive dyes with three basic colors, vinyl sulfone-type black reactive dyes and monochlorotriazine-type black reactive dyes and printed **fabrics** therefrom

IN Matsui, Hideo; Hayami, Takayuki

PA Kanebo, Ltd., Japan; Kanebo Fiber Glass Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06P005-00

ICS B41J002-01; B41M005-00; D06P001-382; D06P001-384

CC 40-6 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002088665	A2	20020327	JP 2000-272698	20000908
PRAI	JP 2000-272698		20000908		
AB	The printed <b>fabrics</b> are prepd. by printing <b>fabrics</b>				

with .gtoreq.5 types of inks comprising reactive dye inks with 3 basic colors, inks contg. vinyl sulfone-type black reactive dyes, and inks contg. monochlorotriazine-type reactive dyes. The printed **fabrics** have the inks contg. vinyl sulfone-type reactive dyes applied to the black printed portions of the **fabrics** and the inks contg. monochlorotriazine-type reactive dyes applied to the portions having color mixts. contg. .gtoreq.1 basic color. A woven **fabric** of cotton yarns was scoured, **bleached**, mercerized, padded with an aq. compn. contg. 0.3% Sumifluoil EM 21 (F-contg. **water repellent**) to pick up 70%, and dried. The treated **fabric** was printed with an aq. ink contg. 20.0% C.I. Reactive Yellow 2, an aq. ink contg. 20.0% C.I. Reactive Red 24, an aq. ink contg. 20.0% C.I. Reactive Blue 15, an aq. ink contg. 20.0% C.I. Reactive Black 5 (vinyl sulfone-type reactive dye), and an aq. ink contg. 20.0% C.I. Reactive Black 8 (monochlorotriazine-type reactive dye), dried, and **heat** -treated 20 min under steam at relative humidity 90% to give a printed **fabric** having black portions and mixed color shading portions.

ST cotton **fabric** ink jet printing reactive dye; textile ink jet printing reactive dye

IT **Textiles**

(cotton; ink-jet printing reactive-dyeable **fabrics** with patterns in black and mixed color shades by printing the **fabrics** with reactive dyes with basic colors vinyl sulfone-type and monochlorotriazine-type black reactive dyes)

IT **Textile printing**

(ink-jet; ink-jet printing reactive-dyeable **fabrics** with patterns in black and mixed color shades by printing the **fabrics** with reactive dyes with basic colors vinyl sulfone-type and monochlorotriazine-type black reactive dyes)

IT Ink-jet printing

(textile; ink-jet printing reactive-dyeable **fabrics** with patterns in black and mixed color shades by printing the **fabrics** with reactive dyes with basic colors vinyl sulfone-type and monochlorotriazine-type black reactive dyes)

IT 129407-23-4, Sumifluoil EM 21

RL: MOA (Modifier or additive use); USES (Uses)

(**water repellent**; ink-jet printing reactive-dyeable **fabrics** with patterns in black and mixed color shades by printing the **fabrics** with reactive dyes with basic colors vinyl sulfone-type and monochlorotriazine-type black reactive dyes)

L82 ANSWER 7 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:147679 CAPLUS

DN 136:201914

TI Retort-, blister-, and **whitening**-resistant ~~polyesters~~ and their coating compositions showing good adhesion to ~~metals~~ and generating no toxic gas when burned

IN Nakata, Tomoyasu

PA Nippon Ester Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese  
 IC ICM C08G063-52  
 ICS C09D167-00  
 CC 42-8 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002060473	A2	20020226	JP 2000-252509	20000823
PRAI	JP 2000-252509		20000823		
AB	Title polyesters, esp. useful for coating of inner walls of food cans, consist of 0.1-10 mol% (based on total dicarboxylic acids) unsatd. dicarboxylic acids and 60-100 mol% (based on total glycols) 1,2-propylene glycol, and show Tg .gtoreq.40.degree. and OH value (OHV) 80-500 equiv/106 g. Thus, a soln. of 25.0:3.0:72.6:97.0:1.5 mol% ethylene glycol-maleic anhydride-1,2-propylene glycol-terephthalic acid-trimethylolpropane copolymer with [.eta.] 0.45 (at 20.degree.), Tg 82.degree., and OHV 280/106 g was applied on a Sn-free steel and dried at 80.degree. to give retort-resistant coating.				
ST	retort blister <b>whitening</b> resistant polyester coating; unsatd polyester coating metal food can; maleic anhydride propylene glycol copolymer coating; adhesion steel unsatd polyester coating				
IT	Coating materials ( <b>heat-resistant</b> ; retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	Canned foods (retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	Metals, miscellaneous RL: MSC (Miscellaneous) (retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	<b>Polyesters</b> , uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (unsatd.; retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	Coating materials ( <b>water-resistant</b> ; retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	30790-78-4P	400820-57-7P	400820-58-8P	400820-59-9P	400820-60-2P
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				
IT	12597-69-2, Steel, miscellaneous RL: MSC (Miscellaneous) (tin-free; retort-, blister-, and <b>whitening</b> -resistant unsatd. <b>polyesters</b> for metal coatings)				

L82 ANSWER 8 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN  
 AN 2002-682633 [73] WPIX

KOROMA EIC1700



DNN N2002-538995 DNC C2002-192498  
 TI Packaging system e.g. for sanitary article, has pair of chambers separated by frangible membrane, which act as substrate reservoir.  
 DC A92 A96 D22 F07 P32 Q34  
 IN PERRY, L J  
 PA (ACCA-N) ACCANTIA HOLDINGS LTD  
 CYC 99  
 PI WO 2002051718 A1 20020704 (200273)\* EN 32p B65D081-32  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZM ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
 DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
 KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT  
 RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 ADT WO 2002051718 A1 WO 2001-GB5622 20011221  
 PRAI GB 2001-382 20010106; GB 2000-31655 20001223  
 IC ICM B65D081-32  
 ICS A61F015-00  
 AB WO 200251718 A UPAB: 20021113

NOVELTY - The chambers separated by a frangible membrane contain the absorbent articles such as cotton bud, sanitary tampon, and act as a substrate reservoir. The frangible membrane allows contact between the materials in chambers, without opening the packaging system.

DETAILED DESCRIPTION - The packaging system has chambers for housing the absorbent materials such as cotton bud, sanitary tampon, shampoo, coloring or conditioners, medicament and lubricant such as extracts of sea algae. The frangible membrane is pressure or heat crimped at a temperature of 120-160 deg. C, by applying a pressure of 10-20 psi, in 0.5-1.5 seconds to a depth of 2-10 mm. The frangible membrane is provided with tearable or weak line to facilitate opening of chambers. A piston or plunger is provided to slide within the chamber to drive the tampon out of the applicator, and a fastener is provided for releasably securing the package which is an adhesive coated tab with relatively strong and weak adhesives at the ends, in a folding arrangement.

INDEPENDENT CLAIMS are included for the following: (i) Intravaginal delivery method of a lubricant or medicament; (ii) Treating method of a vaginal disorder; (iii) Application of KY-Jelly in the manufacture of a sanitary article packaging system; (iv) Delivery method of two separate mixable components; (v) Usage method of foodstuff in the manufacture of a prefilled foodstuff sachet system; (vi) Application of an adhesive monomer/polymerization initiator in the manufacture of a prefilled adhesive sachet system; (vii) Packaging system manufacturing method; (viii) Sanitary article package manufacturing method which involves heat or pressure crimping two strips of a laminate material along longitudinal edge and placing a sanitary article and a material in respective chambers. Again, the strips are crimped along another longitudinal edge and finally cut to produce a sanitary article; and (ix) Sanitary article packaging system.

USE - To separate housed components for e.g. acrylic adhesives, in treatment of vaginal disorders including bacterial, microbial, fungal and parasitic infections or related medical disorders, for food products such

as yoghurts, fruit sauce, bread sticks and dip, sausages and dips, cake or biscuit bar and cream, chocolate or fudge sauce, e.g. ice cream, desserts with fruit, chocolate or fudge sauce, potato chip and dip, corn chips and dip, for absorbent articles e.g. sanitary articles or **cotton** buds etc., dry, absorbent sanitary product e.g. catamenial tampon, housing sanitary article such as medicaments which include anti-microbial agents such as **triclosan** or chlorhexidine or anti-fungal agents such as clotrimazole, also includes homeopathic medicines or aromatherapy materials, cosmetics, drugs, hormones and lubricants which include extracts of sea algae such as alginates, exudates of plants, such as tragacanth, extracts of plants such as pectins, and derivatives such as dextrins, derivatives of cellulose such as methyl, cellulose, fatty substance such as mono, di, triglycerides of higher saturated fatty acids, ethoxylated products such as polyethylene glycol 200-4000, hydrocarbons such as paraffin oils, polymers such as polyvinyl alcohols, alcohols such as ethylene glycol, emulsifiers such as alecithin, cellulosic polymers e.g. KY-Jelly.

ADVANTAGE - As the frangible membrane is capable of collapsing or tearing, breaking, bursting, cracking or snapping or tearing or breaking down under stress, it allows the materials in chambers to mix or contact.

DESCRIPTION OF DRAWING(S) - The figure shows the side cross-sectional view of the packaging system.

Dwg.6/15

FS CPI GMPI

FA AB; GI

MC CPI: A12-P01A; A12-S06C1; D09-C; F04-C01; F04-E04; F04-F04

L82 ANSWER 9 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN

AN 2002-536454 [57] WPIX

DNC C2002-152036

TI Production of hydrophobic **cotton** fabric, e.g. undergarments, involves **bleaching** fabric with optical **whitener**, applying water resistance solution, and conveying the fabric through tenter frame machine.

DC A87 D22 F06

IN BRIER, M

PA (BRIE-I) BRIER M

CYC 1

PI US 2002042956 A1 20020418 (200257)\* 5p> D06M010-00

ADT US 2002042956 A1 Provisional US 2000-240423P 20001013, US 2001-975495 20011011

PRAI US 2000-240423P 20001013; US 2001-975495 20011011

IC ICM D06M010-00

AB US2002042956 A UPAB: 20020906

NOVELTY - A hydrophobic **cotton** fabric (10) is produced by **bleaching** the fabric with an optical **whitener**. The fabric is affixed to a conveying machine. A water resistance solution is applied to the fabric by conveying the fabric through a pad bath (22). The fabric is conveyed twice through a tenter frame machine (24) to effect curing of the chemicals.

DETAILED DESCRIPTION - Production of hydrophobic **cotton** fabric, comprises **bleaching cotton** fabric with an

optical **whitener**. The fabric is affixed to a conveying machine. A water resistance solution (7 lbs) is applied for each 100 lbs fabric by conveying the fabric through a pad bath. The fabric is conveyed through a tenter frame machine having a **heating** chamber set at approx. 340 deg. F, such that the fabric passes through the **heating** chamber (26) at approx. 17 yards/min.. The fabric is conveyed through the tenter frame machine for a second time to effect curing of the chemicals, resulting in a water-resistant **cotton** fabric.

An INDEPENDENT CLAIM is included for a process for producing nylon fabrics or blends containing nylon with polyester, polypropylene, **cotton**, rayon or wool, having hydrophobic and antimicrobial properties, comprising applying approx. 3 lbs of antibacterial substance and 2 lbs of water repellant for each approx. 100 lbs of fabric by conveying the fabric through a pad bath; and conveying the treated fabric through a tenter frame machine having a **heating** device set for approx. 325 deg. F at approx. 40 yards/min..

USE - The method is used for producing water-resistant **cotton** fabric. The fabric is used as undergarments for those suffering from incontinence; feminine shields; bedding products, e.g. mattress pads and covers; and apparel such as t-shirts, lingerie, and medical gowns.

ADVANTAGE - The method produces fabric that preserves hygienic freshness. The fabric remains hydrophobic for extended periods and numerous machine washings.

DESCRIPTION OF DRAWING(S) - The figure shows a fabric conveying and processing apparatus.

Fabric 10

Pad bath 22

Tenter frame machine 24

**Heating** chamber 26

Dwg. 1/1

FS CPI

FA AB; GI

MC CPI: A03-A05A; A08-M02; A11-A01; A12-S05R; A12-S05T; D09-C02; D09-C04D; F03-B01; F03-C02A; F03-C02B

L82 ANSWER 10 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:300604 CAPLUS

DN 134:296997

TI Laminated polyester films with good adhesiveness, reusability and **resistance to water and heat-induced whitening**

IN Taki, Hiroshi; Morishige, Chikao; Higashiura, Shinya; Satoh, Masayoshi

PA Toyo Boseki Kabushiki Kaisha, Japan

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B32B027-36

ICS C08J007-04

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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PI WO 2001028772 A1 20010426 WO 2000-JP7272 20001019  
W: KR, US  
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE

JP 2001187437 A2 20010710 JP 2000-319813 20001019  
EP 1238797 A1 20020911 EP 2000-969892 20001019  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY

PRAI JP 1999-297133 A 19991019  
WO 2000-JP7272 W 20001019

AB A laminated films comprise a polyester base film layer and .gtoreq.1  
covering layer having a water-sol. or a water-dispersible resin as a main  
component, where the laminated films have a value for the  
**resistance to water** of .gtoreq.90%, a value for  
discoloration after the melt molding thereof of .ltoreq.10 and the change  
in a haze value after heating of .ltoreq.20%. Thus, prepg. a polyester  
contg. di-Me terephthalate 33, di-Me isophthalate 33, sebacic acid 30,  
fumaric acid 4, 1,4-butanediol 60 and ethylene glycol 40 mol%, heating 75  
parts the polyester with MEK 56, i-PrOH 19 and maleic anhydride 15 at  
65.degree., adding styrene 10 and AIBN 1.5 dissolved in MEK 12 parts,  
polymg. and working up gave a graft copolymer with acid no. 1400  
equiv/ton. Mixing 40 parts a 25% aq. dispersion of the graft copolymer  
with water 24, i-PrOH 36, propionic acid 1 and an anionic surfactant 1%  
and a colloidal silica (5% based on resin solids), coating the resulting  
mixt. on 2 surfaces of a longitudinally-stretched PET polyester film to  
dry pickup wt. 0.6 g/m2, drying at 80.degree. for 20 s, stretching 4:1 on  
a tenter at 120.degree. and heating the coat film at 260.degree. for 0.5 s  
and at 200.degree. for 23 s to give a coat film with good claimed  
properties.

ST **water resistance** laminated PET polyester film; vinyl  
grafted unsatd polyester water miscible coating film; isophthalic  
terephthalic acid polyester vinyl grafted water sol coating; maleic  
anhydride copolymer polyester coating laminated film; adhesiveness  
improver coating vinyl grafted polyester coating; **whitening**  
**resistance** coating polyester film

IT **Polyesters, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(based film; laminated **polyester** films with good  
adhesiveness, reusability and **resistance to water**  
and **heat-induced whitening**)

IT Coating materials  
**Heat-resistant materials**  
**Water-resistant materials**  
(laminated **polyester** films with good adhesiveness,  
reusability and **resistance to water** and  
**heat-induced whitening**)

IT Laminated plastics, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(laminated **polyester** films with good adhesiveness,  
reusability and **resistance to water** and

**heat-induced whitening)**

IT **Polyesters**, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(vinyl grafted, surface coating; laminated **polyester** films with good adhesiveness, reusability and **resistance to water and heat-induced whitening**)

IT 25038-59-9, PET **polyester**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(based film; laminated **polyester** films with good adhesiveness, reusability and **resistance to water and heat-induced whitening**)

IT 334828-92-1P, 1,4-Butanediol-dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-fumaric acid-maleic anhydride-sebacic acid-styrene graft copolymer 334828-93-2P, 1,4-Butanediol-dimethyl isophthalate-dimethyl terephthalate-ethyl acrylate-ethylene glycol-fumaric acid-maleic anhydride-sebacic acid-styrene graft copolymer 334828-94-3P, 1,4-Butanediol-dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-fumaric acid-maleic anhydride-5-sodiosulfoisophthalic acid-styrene graft copolymer 334828-95-4P, 1,4-Butanediol-dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-Elastron H3; fumaric acid-maleic anhydride-5-sodiosulfoisophthalic acid-styrene graft copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(laminated **polyester** films with good adhesiveness, reusability and **resistance to water and heat-induced whitening**)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; EP 850757 A CAPLUS
- (2) Anon; KR 98064682 A
- (3) Toyobo Co Ltd; EP 850757 A CAPLUS
- (4) Toyobo Co Ltd; KR 98064682 A
- (5) Toyobo Co Ltd; JP 10235820 A 1998 CAPLUS

L82 ANSWER 11 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:110112 CAPLUS

DN 134:167029

TI Manufacture of light-weight clay-based articles similar to unglazed ceramic plates

IN Taira, Tetsusaburo, Igari, Makoto

PA Tokyo Seihinkaihatu Kenkyusho, Japan

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM B29C071-00

NCL 264236000

CC 57-5 (Ceramics)

Section cross-reference(s): 38

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6187239	B1	20010213	US 1999-280692	19990330
PRAI	US 1999-280692		19990330		

AB An **whitening**-free interior or exterior finishing clay-based material with superior **water resistance** and refractory behavior is **fabricated** at low temp. without sintering. The clay-based article, similar to an unglazed ceramic plate, is prepd. by molding and drying a mixt. of 40-60 wt.% clay-based material( such as kaolin and/or sericite), 11-29 wt.% liq. resin strengthening agent and 14-17 wt.% disperse soln. of 4-9% aluminum silicate in 4% polyethylene glycol aq. sol. as wt.-reducing agent and 5-6 wt.% of 2% pentaerythritol aq. sol. before hardening with a 110-150.degree.C **heat** treatment. The fired molded products have sandstone appearance with good bending strength and **water resistance**.

ST clay aluminum silicate liq resin molding drying crosslinking **fabrication**; kaolin aluminum silicate liq resin molding drying crosslinking **fabrication**; sericite aluminum silicate liq resin molding drying crosslinking **fabrication**

IT Bending strength  
Crosslinking  
Drying  
Tiles  
(Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Kaolin, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(clay precursor; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Hardening (mechanical)  
(crosslinking; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT **Water-resistant** materials  
(**impact-resistant**, clay-based; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Polyoxyalkylenes, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(in aq. sol., wt. reducing agent; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Clays, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(precursors; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Polymers, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(resin liq.; Manuf. of light-wt. clay-based articles similar to unglazed ceramic plates)

IT Impact-resistant materials  
 (water-resistant, clay-based; Manuf. of light-wt.  
 clay-based articles similar to unglazed ceramic plates)

IT 12174-53-7, Sericite  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical  
 process); PROC (Process); USES (Uses)  
 (clay precursor; Manuf. of light-wt. clay-based articles similar to  
 unglazed ceramic plates)

IT 115-77-5, Pentaerythritol, processes  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical  
 process); PROC (Process); USES (Uses)  
 (fluidizing agent; Manuf. of light-wt. clay-based articles similar to  
 unglazed ceramic plates)

IT 25322-68-3, Polyethylene glycol  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical  
 process); PROC (Process); USES (Uses)  
 (in aq. sol., wt. reducing agent; Manuf. of light-wt. clay-based  
 articles similar to unglazed ceramic plates)

IT 1335-30-4, Silicic acid, aluminum salt  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical  
 process); PROC (Process); USES (Uses)  
 (wt. reducing agent; Manuf. of light-wt. clay-based articles similar to  
 unglazed ceramic plates)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; JP 5788062 1982
- (2) Anon; JP 582255 1983
- (3) Anon; JP 04280848 1992 CAPLUS
- (4) Anon; JP 04280884 1992 CAPLUS
- (5) Anon; JP 04280886 1992 CAPLUS
- (6) Anon; JP 578181 1993
- (7) Anon; JP 734029 1995
- (8) August; US 4208319 1980 CAPLUS

L82 ANSWER 12 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:734091 CAPLUS

DN 135:290350

TI Preserved bamboo having durability and good appearance, their manufacture,  
 and their use

IN Nakayama, Masaaki

PA Teori K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B27K003-50

ICS B27K003-52; B27M003-00

CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 5

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2001277209 A2 20011009 JP 2000-139203 20000403  
 PRAI JP 2000-139203 20000403  
 AB Bamboos are **bleached**, preserved, **heat-treated**, surface-treated, and (a) treated with flame retardants, colorants, and/or antistatic agents and resins and/or (b) shaping into desired forms and bonded with each other to give preserved bamboo materials, which may be surface-treated with the treatment agents described as above or oils and/or **waterproofing** agents, deodorants, mothproofing agents, or germicides. The treated bamboos are useful for buildings, boxes, furnitures, etc. Thus, bamboo chips was treated in a hot H2O2, dried in a hot air, bonded with each other by using a urea resin-based adhesive, polished, soaked in a dispersion contg. chlorinated paraffin-based flame retardant, poly(ethylene oxide)-based quaternary ammonium-type antistatic agent, a triazole-type antioxidant, and a dispersing agent, dried, then stained to give a bamboo material having good appearance.  
 ST bamboo preservative treatment furniture building box  
 IT **Waterproofing** agents  
     (Si-contg.; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Aminoplasts  
     RL: TEM (Technical or engineered material use); USES (Uses)  
     (adhesives; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Paraffin waxes, uses  
     RL: MOA (Modifier or additive use); USES (Uses)  
     (chloro, flame retardant; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Construction materials  
     (decorative; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Phosphates, uses  
     RL: MOA (Modifier or additive use); USES (Uses)  
     (org., esters, anionic, antistatic agent; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Quaternary ammonium compounds, uses  
     RL: MOA (Modifier or additive use); USES (Uses)  
     (poly(ethylene oxide) derivs., antistatic agent; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Antistatic agents  
     Bamboo  
     Biocides  
     Fireproofing agents  
     Furniture  
     Mothproofing agents  
     (preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Pyrethrins  
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
     (pyrethroids, derivs., mothproofing agents; preserved bamboo having durability and good appearance, their manuf., and their use)  
 IT Polyoxyalkylenes, uses



RL: MOA (Modifier or additive use); USES (Uses)  
(quaternary ammonium salt, antistatic agent; preserved bamboo having durability and good appearance, their manuf., and their use)

IT Phosphates, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tris(dichloropropyl) group-contg., flame retardant; preserved bamboo having durability and good appearance, their manuf., and their use)

IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(unsatd., binders, treatment agents contg.; preserved bamboo having durability and good appearance, their manuf., and their use)

IT 9011-05-6, Urea resin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesives; preserved bamboo having durability and good appearance, their manuf., and their use)

IT 25322-68-3D, Poly(ethylene oxide), quaternary ammonium salt  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent; preserved bamboo having durability and good appearance, their manuf., and their use)

IT 13463-41-7, Zinc pyrithione  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(biocides; preserved bamboo having durability and good appearance, their manuf., and their use)

IT 108-95-2, Phenol, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(derivs., antistatic agent; preserved bamboo having durability and good appearance, their manuf., and their use)

L82 ANSWER 13 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN

AN 2002-145993 [19] WPIX

DNC C2002-045210

TI Antibacterial cotton and its manufacture.

DC A23 D22 F04

IN KIM, D J; SIN, H M

PA (KIMD-I) KIM D J; (SINH-I) SIN H M

CYC 1

PI KR 2001074214 A 20010804 (200219)\* 1p D04H001-02

ADT KR 2001074214 A KR 2001-19093 20010410

PRAI KR 2001-19093 20010410

IC ICM D04H001-02

AB KR2001074214 A UPAB: 20020321

NOVELTY - An antibacterial cotton and its manufacture are provided, which is characterized by protecting a body from ticks and mould, removing a bad-smell, radiating bio-far infrared ray and controlling thermal decomposition, and is useful for an antibacterial counterpane, an antibacterial undergarment, an antibacterial carpet and so on.

DETAILED DESCRIPTION - The antibacterial cotton is obtained by a process containing the steps of: feeding polyester type fiber containing 10-40wt.% of low melting fiber by a transfer fan to an auto hopper; opening the polyester type fiber with a brine cylinder, a dart

roller, a stripper roller and a worker roller, followed by spraying inorganic antibacterial agent added with an adhesive on a doffer; mixing 25% of water and 75% of the inorganic antibacterial agent into a tank with a mixing driving motor, followed by spraying the mixed inorganic antibacterial agent to the polyester type fiber; opening more fine through a comb, and mixing the opened fiber and the inorganic antibacterial agent; drying moisture of the antibacterial agent, and heating at 160-230 deg. C to melt the low melting fiber, so infiltrating the inorganic antibacterial agent into the inside of the melted fiber; extruding on a chip type anti-bacterial cotton at high temperature; cooling by an air supplying method; and then finishing the chip type antibacterial cotton on proper shape and size.

Dwg.1/10

FS CPI  
FA AB; GI  
MC CPI: A05-E01B2; A08-M02; A11-B07; D09-A01C; F01-F03; F03-C02B

L82 ANSWER 14 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:695172 CAPLUS

DN 134:223953

TI Antimicrobial finish of polyester microfiber knitted pile fabrics with high water absorption

AU Park, Myung-Ja; Kim, Seong Hun

CS Department of Fiber & Polymer Engineering, Center for Advanced Functional Polymers, Hanyang University, Seoul, 133-791, S. Korea

SO Journal of the Korean Fiber Society (2000), 37(8), 470-478  
CODEN: HSKCDQ; ISSN: 1225-1089

PB Korean Fiber Society

DT Journal

LA Korean

CC 40-9 (Textiles and Fibers)

AB The microfiber knitted pile fabrics treated by antimicrobial finish (com. tin and phenol compd.) was studied. Two kinds of split-type nylon/polyester microfiber fabrics and one conventional filament fabric were treated with the solns. at various concns. by pad-dry process. Antimicrobial activity, durability, and water-related transport properties of the finished fabrics were analyzed. Antimicrobial activity of the finished fabrics was evaluated by bacterial redn. (%). Excellent antimicrobial activity was obtained at very low concn. but the microfiber fabric pretreated with water-oil repellent agent showed antimicrobial activity at high concn. due to low % add-on. Microfiber fabrics finished at the specific concn. showed good durability to repeated laundering compared with the conventional filament fabric. No curing process at high temp. was necessary because a simple drying of the padded fabric at 50 .degree.C gave excellent durability to laundering. Also, durability to dry cleaning and bleaching, and stability to the heat of the finished microfiber fabrics were excellent. Intrinsic water-related properties of microfiber fabrics were little changed after antimicrobial finish. Therefore, the multifunctional microfiber fabrics with high

water absorption and antimicrobial property were developed, which is good for hygienic end-use.

- ST antimicrobial finish polyester microfiber knitted fabric; water absorption polyester microfiber knitted fabric; nylon polyester fabric antimicrobial finish; tin compd polyester fabric antimicrobial finish; phenol compd polyester fabric antimicrobial finish
- IT Polyamide fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(bicomponent with polyester fibers; tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber; tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT Antimicrobial agents  
Polymer morphology  
(tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT 7732-18-5, Water, processes  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(absorption; tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT 56-35-9, Bis(tributyltin) oxide 3380-34-5, 5-Chloro-2-(2,4-dichlorophenoxy)phenol  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(antimicrobial agents; tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)
- IT 25038-59-9, Poly(ethylene terephthalate), uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber; tin- and phenolic compd. for antimicrobial finishing of polyester microfiber knitted pile fabrics with high water absorption)

L82 ANSWER 15 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1999:420991 CAPLUS  
DN 131:74603

TI Polyester films for lamination of metal sheets with excellent processability  
 IN Kubo, Koji; Murooka, Hirofumi  
 PA Teijin Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08J005-18  
 ICS B29C055-12; B32B015-08; C08G063-183; C08G063-189; B29K067-00; B29L007-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 17, 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11181114	A2	19990706	JP 1997-353095	19971222
PRAI	JP 1997-353095		19971222		

AB Biaxially stretched polyester films based on ethylene terephthalate unit-based copolyesters having m.p. 210-245.degree. have face orientation coeff. 0.100-0.150 and satisfy the following: Tg .gtoreq. 78.degree., Te - Tg .ltoreq. 30.degree., and 0.10 .ltoreq. I(110)/I(100) .ltoreq. 0.40 [Tg = glass-transition temp. in DSC measurement after heating to 290.degree. and quenching; Te = max. peak temp. of loss modulus; I(100) and I(110) = x-ray diffraction strength by parallel (100) and (110) surface, resp.]. Thus, PET contg. 18 mol% 2,6-naphthalenedicarboxylic acid as a comonomer (m.p. 213.degree.) was extruded into a film, stretched biaxially, and heat-set to show Tg 83.degree., Te 103.degree., I(110)/I(100) 0.34, and face orientation coeff. 0.104. A tin-free steel sheet sandwiched with the polyester film was deep-drawn to give a can showing no whitening on the film, good heat, impact, and retort resistance, and good flavor retention of H2O filled in it.

ST deep drawability polyester film metal can; beverage can flavor retention polyester film; heat resistance beverage can polyester film; impact resistance beverage can polyester film; retort resistance beverage can polyester film

IT Water-resistant materials  
 Water-resistant materials  
 (heat-resistant; polyester films for lamination of metal sheets with good deep drawability)

IT Beverage cans  
 Impact-resistant materials  
 Laminated plastic films  
 (polyester films for lamination of metal sheets with good deep drawability)

IT Polyesters, uses  
 RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (polyester films for lamination of metal sheets with good deep drawability)

IT Heat-resistant materials  
 Heat-resistant materials

(water-resistant; polyester films for lamination of metal sheets with good deep drawability)  
 IT 25038-91-9, 1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer 25915-92-8, Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer 55988-69-7, Ethylene glycol-isophthalic acid-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer  
 RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(polyester films for lamination of metal sheets with good deep drawability)  
 IT 12597-69-2, Steel, uses  
 RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(polyester films for lamination of metal sheets with good deep drawability)

L82 ANSWER 16 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:420990 CAPLUS

DN 131:74602

TI Polyester films for lamination of metal sheets with excellent processability

IN Kubo, Koji; Murooka, Hirofumi

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08J005-18

ICS B29C055-12; B32B015-08; C08G063-183; C08G063-189; B29K067-00; B29L007-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 55, 56

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11181113	A2	19990706	JP 1997-353094	19971222
JP 1997-353094		19971222		

AB Biaxially stretched polyester films based on ethylene terephthalate unit-based copolyesters having m.p. 210-245.degree. have face-direction refractive index 1.620-1.670 in any directions and satisfy the following: Tg .gtoreq. 78.degree., Te - Tg .ltoreq. 30.degree., and 0.10 .ltoreq. I(110)/I(100) .ltoreq. 0.40 [Tg = glass-transition temp. in DSC measurement after heating to 290.degree. and quenching; Te = max. peak temp. of loss modulus; I(100) and I(110) = x-ray diffraction strength by parallel (100) and (110) surface, resp.]. Thus, PET contg. 18 mol% 2,6-naphthalenedicarboxylic acid as a comonomer (m.p. 213.degree.) was extruded into a film, stretched biaxially, and heat-set to show Tg 83.degree., Te 103.degree., I(110)/I(100) 0.35, and face-direction refractive index 1.635-1.654. A tin-free steel sheet sandwiched with the polyester film was deep-drawn to give a can showing no whitening on the film, good heat, impact, and retort resistance, and good flavor retention of H2O filled in it.

ST deep drawability polyester film metal can; beverage can flavor retention polyester film; heat resistance beverage can polyester film; impact resistance beverage can polyester film; retort resistance beverage can polyester film

IT Water-resistant materials  
Water-resistant materials  
(heat-resistant; polyester films for lamination of metal sheets with good deep drawability)

IT Beverage cans  
Impact-resistant materials  
Laminated plastic films  
(polyester films for lamination of metal sheets with good deep drawability)

IT Polyesters, uses  
RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(polyester films for lamination of metal sheets with good deep drawability)

IT Heat-resistant materials  
Heat-resistant materials  
(water-resistant; polyester films for lamination of metal sheets with good deep drawability)

IT 25038-91-9, 1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer 25915-92-8, Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer 55988-69-7, Ethylene glycol-isophthalic acid-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer  
RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(polyester films for lamination of metal sheets with good deep drawability)

IT 12597-69-2, Steel, uses  
RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(polyester films for lamination of metal sheets with good deep drawability)

L82 ANSWER 17 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:298407 CAPLUS

DN 130:339139

TI Heat-shrinkable polyester films

IN Tanaka, Kiyosuke; Yoshida, Atsushi

PA Mitsubishi Rayon Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08J005-18

ICS B29C061-06; C08G063-02; B29K067-00; B29L007-00; C08L067-02

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 11124448 A2 19990511 JP 1997-306369 19971022  
 PRAI JP 1997-306369 19971022  
 AB Title films with no wrinkle by shrink, useful for labels and caps with no whitening or breakage by retort treatment, are made of polyesters with Tg 40-60.degree. (Tg = glass-transition temp.) and m.p. .gtoreq.150.degree. which comprise mainly butylene terephthalate and 20-55 mol% other acid and glycol components. Thus, a mixt. of 51% di-Me terephthalate, 27.2% 1,4-butanediol (I), and 21.8% bisphenol A ethylene oxide adduct (II) was polymd. to obtain polyester with Tg 49.degree. and m.p. 170.degree. comprising 100% terephthalate in acid component and 75% I and 25% II in glycol component. Its double-axially drawn film showed good size stability with heat shrinkage 53% (100.degree. for 1 min).  
 ST heat shrinkable polyester film retort resistance; butylene terephthalate based polyester film; bisphenol A polyethylene glycol copolymer polyester; polyoxyalkylene polyester block copolymer heat shrinkage  
 IT Heat-resistant materials  
     Water-resistant materials  
     (films; poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Films  
     (heat-resistant; poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Heat-shrinkable films  
     Transparent films  
     (poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Polyesters, uses  
     RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
     (poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Polyoxyalkylenes, uses  
     Polyoxyalkylenes, uses  
     RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
     (polyester-, block; poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Polyesters, uses  
     Polyesters, uses  
     RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
     (polyoxyalkylene-, block; poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT Films  
     (water-resistant; poly(butylene terephthalate)-based polyester heat-shrinkable films with retort resistance)  
 IT 62287-84-7P, 1,4-Butanediol-1,4-cyclohexanedimethanol-dimethyl

terephthalate copolymer 62502-98-1P, 1,4-Butanediol-dimethyl  
isophthalate-dimethyl terephthalate-ethylene glycol copolymer  
224426-34-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)

(poly(butylene terephthalate)-based **polyester heat**  
-shrinkable films with retort resistance)

L82 ANSWER 18 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:48562 CAPLUS

DN 130:154949

TI Fiber structures finished with phosphorus-containing cationic substances  
for ink-jet printing with improved print sharpness, high color yield and  
good **water resistance**

IN Kotani, Toru; Suzuki, Toshitake; Fukuoka, Shigenori

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06P005-00

ICS D06P005-00; B41M005-00; G09F003-02; G09F017-00

CC 40-6 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11012960	A2	19990119	JP 1997-161555	19970618
PRAI	JP 1997-161555		19970618		

AB The fiber structures for ink-jet printing comprise fibers treated with  
P-contg. cationic substances (A) or mixts. contg. A and crosslinking  
agents for fixing A to the fibers. The printed fiber structures are  
useful for billboards (no data). A 65:36 polyester-cotton blend  
**fabric** was scoured, **bleached**, padded with a compn.  
contg. methylolacrylamide-tributyl(4-vinylbenzyl)phosphonium chloride  
copolymer 15, aq. 85% trimethylolmelamine 3, and MgCl<sub>2</sub> 0.2 part, dried,  
**heat-treated**, and ink-jet printed with a waterborne ink contg. a  
black pigment to give a printed **fabric** with good print  
sharpness, high color yield, **water resistance** rating  
(5 best, 1 worst) 4, and yellowing index (b value) of the nonprinted  
portion 2.1.

ST **fabric** ink jet printing color yield; butylvinylbenzylphosphonium  
chloride copolymer finish **fabric** printing; phosphonium compd  
finish **fabric** printing; polyester cotton blend ink jet printing;  
cellulosic fiber ink jet printing; **water resistance**  
ink jet printed **fabric**; textile ink jet printing color yield;  
billboard ink jet printed **fabric**

IT Construction materials

(boards, billboards; fiber structures finished with phosphorus-contg.  
cationic substances for ink-jet printing with improved print sharpness,  
high color yield and good **water resistance** for)

IT Fibers

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM



(Technical or engineered material use); PROC (Process); USES (Uses)  
(cellulosic; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Polyester** fibers, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(cotton blends; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Textiles**

(cotton-polyester; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Polyester** fibers, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(fabrics; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Textiles**

**Water-resistant** materials  
(fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Phosphonium** compounds

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Textile** printing

(ink-jet; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT **Ink-jet** printing

(textile; fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

IT 220283-32-9P, Methylolacrylamide-tributyl(4-vinylbenzyl)phosphonium chloride-trimethylolmelamine copolymer 220283-33-0P, Glycidyl methacrylate-itaconic acid-trioctyl(4-vinylbenzyl)phosphonium chloride copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fiber structures finished with phosphorus-contg. cationic substances for ink-jet printing with improved print sharpness, high color yield and good **water resistance**)

AN 1999-518621 [43] WPIX  
DNC C1999-151488  
TI Fabrics with long-lasting antimicrobial properties comprising  
**triclosan** ester derivative.  
DC A60 A94 C03 D22 E14 F06  
IN LI, S  
PA (DEER) MILLIKEN & CO; (DEER) MILLIKEN RES CORP  
CYC 81  
PI WO 9942650 A1 19990826 (199943)\* EN 20p D06P001-64  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SZ UG ZW  
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE  
GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK  
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ  
VN YU ZW  
US 5968207 A 19991019 (199950) D06P001-651  
AU 9922242 A 19990906 (200003) D06P001-64  
EP 1056901 A1 20001206 (200064) EN D06P001-64  
R: DE FR GB  
US 6197072 B1 20010306 (200115) D06M013-165  
CN 1297499 A 20010530 (200156) D06P001-64  
US 6299651 B1 20011009 (200162) D06M013-165  
BR 9909645 A 20020115 (200214) D06P001-64  
JP 2002504630 W 20020212 (200215) 19p D06M013-236  
AU 746470 B 20020502 (200238) D06P001-64  
MX 2000008160 A1 20011101 (200279) D06M013-236  
EP 1056901 B1 20030618 (200341) EN D06P001-64  
R: DE FR GB  
ADT WO 9942650 A1 WO 1999-US676 19990112; US 5968207 A US 1998-27045 19980220;  
AU 9922242 A AU 1999-22242 19990112; EP 1056901 A1 EP 1999-902205  
19990112, WO 1999-US676 19990112; US 6197072 B1 Cont of US 1998-27045  
19980220, US 1999-420435 19991018; CN 1297499 A CN 1999-805017 19990112;  
US 6299651 B1 Cont of US 1998-27045 19980220, Cont of US 1999-420435  
19991018, US 2000-661732 20000914; BR 9909645 A BR 1999-9645 19990112, WO  
1999-US676 19990112; JP 2002504630 W WO 1999-US676 19990112, JP  
2000-532582 19990112; AU 746470 B AU 1999-22242 19990112; MX 2000008160 A1  
MX 2000-8160 20000821; EP 1056901 B1 EP 1999-902205 19990112, WO  
1999-US676 19990112  
FDT AU 9922242 A Based on WO 9942650; EP 1056901 A1 Based on WO 9942650; US  
6197072 B1 Cont of US 5968207; US 6299651 B1 Cont of US 5968207, Cont of  
US 6197072; BR 9909645 A Based on WO 9942650; JP 2002504630 W Based on WO  
9942650; AU 746470 B Previous Publ. AU 9922242, Based on WO 9942650; EP  
1056901 B1 Based on WO 9942650  
PRAI US 1998-27045 19980220; US 1999-420435 19991018; US 2000-661732  
20000914  
IC ICM D06M013-165; D06M013-236; D06P001-64; D06P001-651  
ICS D06P001-00  
AB WO 9942650 A UPAB: 19991020  
NOVELTY - Imparting long-lasting antimicrobial properties to a fabric by  
contacting **triclosan** ester derivative.  
DETAILED DESCRIPTION - Imparting long-lasting antimicrobial  
properties to a fabric comprises:

*check out  
triclosan*

(a) providing at least one triclosan ester derivative; and  
(b) contacting the triclosan ester derivative with a textile at a temperature and for a period of time sufficient to effectuate the diffusion of the triclosan ester derivative within the individual fibers of the textile; in which the textile comprises man-made fibers; and the textile to triclosan ester derivative weight ratio is within 100:03 to 100:1.

ACTIVITY - Antimicrobial; Germicidal; Fungicidal. Equal amounts of triclosan acetate (2,4,4'-trichloro-2'-acetoxy-diphenyl ether) and Triton (RTM) X-301 were introduced to a flask under stirring. Upon addition of 50 wt.% water to the mixture, a stable dispersion of triclosan acetate was obtained at a content of 50 wt.%. The dispersion was then introduced to a jet dyeing machine. A 50 / 50 nylon / lycra blend knit fabric was then added such that the wt.% ratio of fabric to ester was 100:0.1. The machine was then closed, agitated, heated to 120 deg. C for 20 minutes, then cooled to room temperature. Then the fabric was removed, dried and analysed for its antimicrobial properties. The fabric showed 100% contact inhibition and a 3mm zone of inhibition when tested against Staphylococcus aureus. The fabric was then subjected to an equivalent of 25 standard home washes and the fabric retained the same level of contact inhibition and showed a 1mm zone of inhibition against Staphylococcus aureus.

MECHANISM OF ACTION - None given.

USE - The process imparts long-lasting durable antimicrobial, germicidal and fungicidal properties to textiles. The treated fabric may be incorporated into a garment, table linen, bathroom linen, napery linen, bar towel or any other type of fabric where antimicrobial properties are desirable.

ADVANTAGE - The procedure is relatively inexpensive. The fabric retains antimicrobial compounds in it through at least twenty-five laundry cycles (equivalent to one year with washing every other week).

Dwg.0/0

FS CPI  
FA AB; DCN  
MC CPI: A08-M02; A12-S05R; C10-G02; C14-A01; C14-A04; C14-X; D09-A01C;  
E10-G02F1; F03-C02B

L82 ANSWER 20 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:498670 CAPLUS

DN 129:123618

TI Diamine- and monocarboxylic acid-modified polyamides and transparent polyamide films with improved retort resistance

IN Urabe, Hiroshi; Sugiura, Katsuhiko; Kadota, Morio

PA Mitsubishi Engineering Plastic K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G069-48

ICS B29C055-12; B32B027-32; B32B027-34; B65D065-40; C08J005-18;

B29K077-00; B29L007-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10204175	A2	19980804	JP 1997-7352	19970120
PRAI	JP 1997-7352		19970120		

AB Polyamides, which have been modified with C1-22 diamines and C1-22 monocarboxylic acids, show relative viscosity ( $\eta_{rel}$ ) 2.0-5.0, and have no. of terminal CO<sub>2</sub>H groups [A] and no. of terminal NH<sub>2</sub> groups [B] both  $\frac{1}{1000} \times \frac{1}{113} \times (\eta_{rel} - 1.2) \times 10^6$  g-polymer, are useful for film formation, esp. for retort food packaging. A biaxially oriented film of hexamethylenediamine- and AcOH-modified poly( $\epsilon$ -caprolactam) ( $\eta_{rel}$  3.0, [A] 34, [B] 37 g-polymer) was steam-heated at 130.degree. for 30 min to show tensile elongation retention 75%, tensile strength retention 97%, and no whitening.

ST polyamide packaging film transparency retort resistance; polycaprolactam modification hexamethylenediamine acetic acid film; food retort pouch packaging film polyamide; diamine carboxylic acid modification polyamide film

IT **Polyamides**, uses  
 RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (biaxially oriented; prepn. of transparent polyamide films with good retort resistance)

IT **Heat-resistant materials**  
 Packaging materials  
**Water-resistant materials**  
 (films; prepn. of transparent polyamide films with good retort resistance)

IT **Films**  
 (heat-resistant; prepn. of transparent polyamide films with good retort resistance)

IT **Packaging materials**  
 (laminated films; prepn. of transparent polyamide films with good retort resistance laminated with polyolefins)

IT **Food packaging materials**  
 Transparent films  
 (prepn. of transparent polyamide films with good retort resistance)

IT **Polyolefins**  
 RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (prepn. of transparent polyamide films with good retort resistance laminated with polyolefins)

IT **Polyamides**, uses  
 RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (reaction products with hexamethylenediamine and carboxylic acid, biaxially oriented; prepn. of transparent polyamide films with good retort resistance)

IT Films

(water-resistant; prepn. of transparent polyamide films with good retort resistance)

IT 25038-54-4DP, .epsilon.-Caprolactam polymer, reaction products with hexamethylenediamine and carboxylic acid  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(biaxially oriented; prepn. of transparent polyamide films with good retort resistance)

IT 57-11-4DP, Octadecanoic acid, reaction products with nylon and hexamethylenediamine, uses 64-19-7DP, Acetic acid, reaction products with nylon and hexamethylenediamine, uses 112-85-6DP, Docosanoic acid, reaction products with nylon and hexamethylenediamine 124-09-4DP, 1,6-Hexanediamine, reaction products with nylon and acetic acid, uses 143-07-7DP, Dodecanoic acid, reaction products with nylon and hexamethylenediamine, uses  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of transparent polyamide films with good retort resistance)

L82 ANSWER 21 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:787919 CAPLUS

DN 128:89995

TI Water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes

IN Okamoto, Yoshihisa; Sangaya, Kentaro

PA Unitika Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-19

ICS A43B001-02; D03D001-00; D03D015-00; C09K003-18; D01F001-10

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09316778	A2	19971209	JP 1996-137952	19960531
PRAI	JP 1996-137952		19960531		

AB The fabrics are prepd. by treating woven twill fabrics of polyester fibers contg. 0.01-0.3% fluorescent whiteners with emulsions contg. 0.2-1.0% F-contg. waterproofing agents to give fabrics with void content .gtoreq.20%. A compn. contg. PET and 0.1% (on PET) Eastbright OB-1 was melt spun, drawn, textured, made into a woven fabric, scoured, treated with a soln. contg. 30 g/L Asahiguard LS-317 (nonionic fluoropolymer waterproofing agent; solids 20%) and 1 g/L Sumitex M-3, squeezed to pickup 100%, dried, and heat-treated 30 s at 180.degree. to give a fabric (void content 21.4%) suitable for shoe insteps and exhibiting water resistance (JIS L-1092, spray method) 100 initially and 90 after

10 washings and light resistance rating (JIS L-0842, carbon arc fadeometer) 6.

- ST **water resistant polyester fabric instep shoe; light resistant polyester fabric instep shoe; fluoropolymer waterproofing agent polyester fiber**
- IT **Polyester fibers, uses**  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(**fabrics; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Polyesters, uses**  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(**fiber; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Waterproofing agents**  
(**fluoropolymers; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Shoes**  
(**insteps; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Waterproofing**  
(**manuf. of water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Fluorescent brighteners**  
**Light-resistant materials**  
(**water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **Polyester fibers, uses**  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(**water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **25038-59-9, Poly(ethylene terephthalate), uses**  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(**fiber; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **1533-45-5, Eastobrite OB 1**  
RL: MOA (Modifier or additive use); USES (Uses)  
(**fluorescent brightener; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes**)
- IT **96352-03-3, Asahiguard LS 317    161936-55-6, Asahiguard LS 320A**

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(waterproofing agent; water-resistant rapidly dryable light-resistant polyester fabrics for insteps for cloth shoes)

L82 ANSWER 22 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:456644 CAPLUS

DN 127:82874

TI UV-curable epoxy resin compositions for coatings

IN Iibuchi, Koichi; Okabayashi, Atsushi

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G059-18

ICS C08G059-36; C08G059-40; C08L063-00; C08L083-07; C09D163-00

CC 42-9 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09165436	A2	19970624	JP 1995-328527	19951218
PRAI	JP 1995-328527		19951218		

AB The compns., esp. suitable for coatings for polyester-covered stretch forming cans, etc., contain (A) liq. epoxy resins, (B) polymers comprising .alpha.,.beta.-unsatd. silicones, .alpha.,.beta.-unsatd. monomers with alicyclic epoxy groups, and other .alpha.,.beta.-unsatd. monomers, and (C) cationic photopolymer initiators. Thus, a 50%-solid propylene glycol monomethyl ether soln. contained a copolymer comprising Silaplane FM 0721 [dimethyl siloxane terminated by OSiMe2C3H6O2CCMe:CH2 on 1 end], Cyclomer A 200, styrene, Et acrylate, and 2-ethylhexyl acrylate at initial reaction ratio 4:80:236:40:40 obtained in the presence of Perbutyl O. A coating contg. Cyacure UVR 6110 100, the soln. 10, UVI 6990 (initiator) 6, and L 7604 1 part was applied onto a PET film-Sin-free steel plate laminate and exposed to UV to give test pieces showing JIS K 5400 pencil hardness 3H, cross-cut adhesion 100/100, and no whitening nor blistering after 30 min in 125.degree.-moisture. A coating on Al plate showed no cracking by du Pont impact test.

ST UV curable coating alicyclic epoxy resin; unsatd silicone alicyclic epoxy resin coating; acrylate terminated siloxane epoxy resin coating; PET adhesion coating epoxy resin polysilicone; **water resistance** coating epoxy resin polysilicone; **heat resistance** coating epoxy resin polysilicone; methacrylate terminated siloxane epoxy resin coating

IT Coating materials

(UV-curable; UV-curable alicyclic epoxy resin compns. contg. reactive silicones for **heat-** and **water-resistant** coatings for cans)

IT Epoxy resins, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(alicyclic, acrylic siloxane-; UV-curable alicyclic epoxy resin compns.  
contg. reactive silicones for **heat- and water-**  
**resistant** coatings for cans)

IT Coating materials

Coating materials

(**heat- and water-resistant**; UV-curable  
alicyclic epoxy resin compns. contg. reactive silicones for  
**heat- and water-resistant** coatings for  
cans)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)

(polysiloxane-, alicyclic epoxy resin-; UV-curable alicyclic epoxy  
resin compns. contg. reactive silicones for **heat- and**  
**water-resistant** coatings for cans)

IT Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(stretch-formed films; UV-curable alicyclic epoxy resin compns. contg.  
reactive silicones for **heat- and water-**  
**resistant** coatings for cans)

IT 104558-95-4, Cyracure UVI

RL: CAT (Catalyst use); USES (Uses)  
(UV-curable alicyclic epoxy resin compns. contg. reactive silicones for  
**heat- and water-resistant** coatings for  
cans)

IT 191859-10-6P 191859-11-7P 191859-12-8P 191859-13-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)

(UV-curable alicyclic epoxy resin compns. contg. reactive silicones for  
**heat- and water-resistant** coatings for  
cans)

IT 7429-90-5, Aluminum, miscellaneous

RL: MSC (Miscellaneous)  
(UV-curable alicyclic epoxy resin compns. contg. reactive silicones for  
**heat- and water-resistant** coatings for  
cans)

IT 25038-59-9, Polyethylene terephthalate, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(stretch-formed films; UV-curable alicyclic epoxy resin compns. contg.  
reactive silicones for **heat- and water-**  
**resistant** coatings for cans)

IT 12597-69-2, Steel, miscellaneous

RL: MSC (Miscellaneous)  
(tin-free; UV-curable alicyclic epoxy resin compns. contg. reactive  
silicones for **heat- and water-resistant**  
coatings for cans)

L82 ANSWER 23 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

KOROMA EIC1700



AN 1997:237776 CAPLUS  
 DN 126:226296  
 TI Thermoformed transparent poly(lactic acid)-based products with improved impact and hot moisture resistance  
 IN Takagi, Jun; Terada, Shigenori  
 PA Mitsubishi Plastics Ind, Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08J005-00  
 ICS C08L067-04  
 CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09025345	A2	19970128	JP 1995-173246	19950710
	JP 3217240	B2	20011009		
PRAI	JP 1995-173246		19950710		

AB Title moldings, useful for packagings, etc., are prepd. by thermoforming of oriented sheets of poly(lactic acid)-based polymers with facial orientation  $\Delta P$  3.0 times. 10-3-30 times. 10-3,  $\Delta H_m - \Delta H_c$   $\geq 20$  J/g, and  $(\Delta H_m - \Delta H_c) / \Delta H_m \geq 0.75$  ( $\Delta H_m$  = heat of crystal melting in sheets during heating;  $\Delta H_c$  = heat of crystn.). Thus, 98:2 L-lactic acid-D-lactic acid copolymer was extrusion-molded to give a sheet [ $\Delta P$  10 times. 10-3,  $\Delta H_m - \Delta H_c$  50 J/g,  $(\Delta H_m - \Delta H_c) / \Delta H_m \geq 0.95$ ], which was biaxially drawn and thermoformed to give a cup showing good impact strength and prevention of whitening or distortion after 24 h at 80% relative humidity and 50.degree..

ST heat molded polylactic acid impact strength; hot moisture resistance polylactic acid; transparency polylactic acid impact resistance

IT Containers  
 (cups; thermoformed transparent poly(lactic acid)-based products with improved impact and hot moisture resistance)

IT Biodegradable materials

Heat-resistant materials

Impact-resistant materials

Water-resistant materials

(thermoformed transparent poly(lactic acid)-based products with improved impact and hot moisture resistance)

IT Polyesters, processes

RL: BPR (Biological process); BSU (Biological study, unclassified); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PREP (Preparation); PROC (Process)

(thermoformed transparent poly(lactic acid)-based products with improved impact and hot moisture resistance)

IT 26023-30-3P, Poly(lactic acid), sru 127514-57-2P, D-Lactic acid-L-lactic acid copolymer

RL: BPR (Biological process); BSU (Biological study, unclassified); IMF

(Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PREP (Preparation); PROC (Process)

(thermoformed transparent poly(lactic acid)-based products with improved impact and hot moisture resistance)

L82 ANSWER 24 OF 68 JICST-Eplus COPYRIGHT 2003 JST on STN

AN 970732604 JICST-Eplus

TI The Effect of Simple Dry Heat Sterilizers to K-file.

AU NAKANO MASAKO; OZAWA TOSHIKO; WAKIYAMA CHIHARU; SUGAWARA MAYUMI; NAKAZAWA TAKAAKI; NAMIKAWA YOKO; TAKIZAWA HISASHI; NAKAMURA JIRO

CS Turumi Univ., Sch. of Dent. Med.

SO Nippon Shika Hozongaku Zasshi (Japanese Journal of Conservative Dentistry), (1997) vol. 40, no. 3, pp. 847-853. Journal Code: Y0096A (Fig. 6, Tbl. 1, Ref. 12)

ISSN: 0387-2343

CY Japan

DT Journal; Article

LA Japanese

STA New

AB Sterilization of instruments is very important in endodontic treatment, though time and labour are needed for sterilization. If instruments which have high frequency in use such as reamer and file could be sterilized in a short time near the dental chair, efficiency of treatment would certainly increase. So this study was performed to compare the effect of four kinds of simple dry sterilizer by using the K-type file with bacterial contamination. Simple dry sterilizers used were NI electric drying apparatus (here in after 'NI'), SL sterilizer ('SL'), KING FISHER 21 ('KING'), and Bizu 260K ('BIZU'). As for the SL, two parts (slit and hole) were used. The species of bacteria were Enterococcus faecalis, Staphylococcus aureus, Pseudomonas aeruginosa and Bacillus subtilis. Each species was prepared to  $2.0-8.0 \times 10^7$  (herein after  $\times 10^7$ ) and  $2.0-8.0 \times 10^4$  ( $\times 10^4$ ). Following the measurement of the temperature in each sterilizer, #15 and #45K-type files which were previously immersed in bacterial liquid were put in each sterilizer for 3, 5, 10, 15, 30, 60, and 90 seconds. Then they were cultured in Tryptic Soy Broth for 24 and 48 hours, and macroscopic observation was performed. The results were as follows: (1) Time for disappearance of bacteria on #45K-type files was longer than that on #15K-type files. (2) When the number of bacteria was  $\times 10^4$ , time for disappearance was quite shorter in comparison with  $\times 10^7$ . (3) Among the sterilizers, BIZU and SL (slit and hole) showed a relatively good result. (4) Bacillus subtilis needed a long time for disappearance compared to other species in each sterilizer. In the clinical use of these sterilizers, if the number of bacteria are decreased beforehand by wiping with alcohol cotton, etc., sterilization may be finished within 10 seconds. (author abst.)

CC GA05020L (615.472/.473)

CT dental equipment; heat sterilization; sterilizer; bactericidal action; Streptococcus faecalis; Staphylococcus aureus; Pseudomonas aeruginosa; Bacillus subtilis

BT medical equipment; sterilization(disinfection); equipment; antimicrobial action; pharmacological action; action and effect; Enterococcus;

Streptococcaceae; bacterium; microorganism; Staphylococcus;  
Micrococcaceae; Pseudomonas; Pseudomonadaceae; Bacillus; Bacillaceae;  
endospore-forming rods and cocci

L82 ANSWER 25 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1996:658669 CAPLUS  
DN 125:278750  
TI Epoxy resin compositions for powdered coatings for food cans with improved  
**water resistance** and retorting **heat resistance**  
IN Shinohara, Shuya; Takeda, Yasuyuki  
PA Toto Kasei Kk, Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C09D005-03  
ICS C08G059-14; C09D005-00; C09D163-00  
CC 42-9 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08209035	A2	19960813	JP 1995-13634	19950131
PRAI	JP 1995-13634		19950131		

AB The compns. comprise (A) modified bisphenol A epoxy resins contg. 10-30% units of fatty acids with dimer content .gtoreq.90% and having glass transition temp. 20-80.degree. and .alpha.-diol group content .ltoreq.7 mequiv/100' g and (B) and acidic polyesters contg. .gtoreq.2 carboxy groups per mol. and have good storage stability, processability and retorting **heat resistance**. Thus, 70 parts of modified epoxy resin with Tg 59.degree. and modification amt. 25% (prepd. from Epo Tohto YD 128 2900, bisphenol A 850, and Versadyne 288 parts) and 30 parts polyester with acid value 65 mgKOH/g (prepd. from ethylene glycol 1395, adipic acid 2920, and trimellitic anhydride 480 parts) were melt-mixed at 120.degree., cooled, pulverized, coated on a tinplate, and baked at 200.degree. for 10 min to give a coating showing good appearance and impact resistance and showing no layer sepn. after 1 h in boiling water and exhibiting no **whitening** after 1 h under steam at 125.degree..

ST epoxy polyester powd coating; impact resistance epoxy polyester powd coating; **water resistance** epoxy polyester powd coating; retorting **heat resistance** epoxy polyester coating; food can coating epoxy polyester powd

IT Food  
(cans; epoxy resin compns. for powd. coatings with improved **water resistance** and retorting **heat resistance** for)

IT Cans  
(for food; epoxy resin compns. for powd. coatings with improved **water resistance** and retorting **heat resistance** for)

IT Fatty acids, properties  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP

(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(C12-18-unsatd., dimers, Pripol 1013, epoxy **polyesters**,  
coatings; manuf. of powd. coatings for food cans with improved  
**water resistance** and retorting **heat**  
resistance)

IT **Polyesters**, properties

RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(epoxy, coatings; manuf. of powd. coatings for food cans with improved  
**water resistance** and retorting **heat**  
resistance)

IT Coating materials

(heat- and water-resistant, powd.; for  
food cans with improved **water resistance** and  
retorting **heat** resistance)

IT Epoxy resins, properties

RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(**polyester-**, coatings; manuf. of powd. coatings for food cans  
with improved **water resistance** and retorting  
**heat** resistance)

IT Coating materials

(powder, epoxy resin compns. for powd. coatings for food cans with  
improved **water resistance** and retorting  
**heat** resistance)

IT Fatty acids, properties

RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(tall-oil, dimers, Versadyme 288, epoxy **polyesters**, coatings;  
manuf. of powd. coatings for food cans with improved **water**  
**resistance** and retorting **heat** resistance)

IT 106-89-8DP, Epichlorohydrin, epoxy **polyesters** 107-21-1DP,  
Ethylene glycol, epoxy **polyesters**

RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(coatings; epoxy resin compns. for powd. coatings for food cans with  
improved **water resistance** and retorting  
**heat** resistance)

IT 57-55-6DP, Propylene glycol, epoxy **polyesters** 80-05-7DP,  
Bisphenol A, epoxy **polyesters** 111-20-6DP, Sebacic acid, epoxy  
**polyesters** 124-04-9DP, Adipic acid, epoxy **polyesters**  
552-30-7DP, Trimellitic anhydride, epoxy **polyesters**

RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP  
(Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(coatings; manuf. of powd. coatings for food cans with improved  
**water resistance** and retorting **heat**  
resistance)

L82 ANSWER 26 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:385784 CAPLUS

DN 125:35502

TI Gas-impermeable hot **water-resistant** saponified

ethylene-vinyl acetate copolymer compositions for retorting containers

IN Myata, Minoru; Negi, Taichi  
 PA Kuraray Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-08  
 ICS C08L063-00  
 ICA C08G059-14  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08059911	A2	19960305	JP 1994-197104	19940823
	JP 3357190	B2	20021216		
PRAI	JP 1994-197104		19940823		

AB The compns. contain 50-99.8% sapon. ethylene-vinyl acetate copolymer with ethylene unit content 20-65 mol% and degree of sapon. .gtoreq.90% and 0.2-50% graft polymers obtained from epoxy-contg. polyolefins and polyamides with d.p. 80-1000. Thus, 5% polypropylene, 90% ethylene-vinyl alc. copolymer with degree of sapon. 99.8%, and 5% graft polymer obtained from polypropylene, glycidyl methacrylate; and .epsilon.-caprolactam polyamide were blended, melt kneaded, pelletized, and extruded to give a film showing O2 transmission rate 0.8 and 16.3 mL/m2-24 h-atm, resp., at 20.degree. and 65% and 100% relative humidity and no. of cycles required for pin-hole formation by a specified test .gtoreq.3000 and exhibiting no whitening on retorting a laminate of the film as the middle layer.

ST ethylene vinyl alc copolymer retort container; gas impermeability ethylene copolymer blend; heat resistance ethylene copolymer blend; polypropylene ethylene copolymer blend retort container

IT Heat-resistant materials

Water-resistant materials

(gas-impermeable hot water-resistant sapon.

ethylene-vinyl acetate copolymer compns. for retorting containers)

IT Containers

(retorts; gas-impermeable hot water-resistant

sapon. ethylene-vinyl acetate copolymer compns. for)

IT Plastics, film

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(sapon. ethylene-vinyl acetate copolymer blends with polyolefins and graft copolymers; gas-impermeable hot water-resistant compns. for retorting containers)

IT Alkenes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(polymers, blends with sapon. ethylene-vinyl acetate copolymers; gas-impermeable hot water-resistant compns. for retorting containers)

IT Polyamides, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polyolefin-, blends with sapond. ethylene-vinyl acetate copolymers; gas-impermeable hot **water-resistant** compns. for retorting containers)

IT 74-85-1D, Ethylene, graft polymers with glycidyl methacrylate and .epsilon.-caprolactam **polyamides** 105-60-2D, .epsilon.-Caprolactam, **polyamides**, graft polymers with olefins and glycidyl methacrylate 106-91-2D, Glycidyl methacrylate, graft polymers with olefins and .epsilon.-caprolactam **polyamides** 115-07-1D, Propylene, graft polymers with glycidyl methacrylate and .epsilon.-caprolactam **polyamides**

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(blends with ethylene-vinyl alc. copolymers; gas-impermeable hot **water-resistant** compns. for retorting containers)

IT 24937-78-8D, Ethylene-vinyl acetate copolymer, sapond.

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(blends with olefin polymers; gas-impermeable hot **water-resistant** compns. for retorting containers)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(blends with sapond. ethylene-vinyl alc. copolymers; gas-impermeable hot **water-resistant** compns. for retorting containers)

L82 ANSWER 27 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:111144 CAPLUS

DN 126:118926

TI Thermoplastic polyurethanes and molded articles and fibers comprising them

IN Iwata, Shizuo; Katoh, Shinya; Nakayama, Kimio; Ashida, Tetsuya; Yoneda, Hisao; Ishiguro, Michihiro; Hirai, Koji

PA Kuraray Co., Ltd., Japan

SO Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C08G018-66

ICS C08G018-42

CC 39-4 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 748829	A1	19961218	EP 1996-109412	19960612
	R: DE, FR, GB, IT, NL				
	JP 08337629	A2	19961224	JP 1995-146042	19950613

KOROMA EIC1700

JP 3410581	B2	20030526		
JP 09024590	A2	19970128	JP 1995-174593	19950711
JP 09049120	A2	19970218	JP 1995-219423	19950807
US 5780573	A	19980714	US 1996-652131	19960523
CA 2177760	AA	19961214	CA 1996-2177760	19960530
CN 1182098	A	19980520	CN 1996-110418	19960613
CN 1092676	B	20021016		
US 5912193	A	19990615	US 1998-33653	19980303
CN 1350073	A	20020522	CN 2001-135453	20011008
PRAI JP 1995-146042	A	19950613		
JP 1995-174593	A	19950711		
JP 1995-219423	A	19950807		
US 1996-652131	A3	19960523		

AB Disclosed are thermoplastic polyurethanes obtainable by reacting (a) a polyester-polyol that satisfies all the following requirements (1) to (4): (1) its ester group content (no. of ester bonds/no. of all carbon atoms) is from 0.08 to 0.17; (2) it has hydroxyl groups of from 2.01 to 2.08 per one mol.; (3) it has a no. av. mol. wt. of from 1000 to 7000; and (4) it has a crystn. enthalpy (.DELTA.H) of 70 J/g or less, (b) an org. diisocyanate and (c) a chain extender at a ratio that satisfies the following numerical formula:  $1.00 \cdot \text{ltoreq. } b / (a+c) \cdot \text{ltoreq. } 1.10$ , where a indicates the no. of mols of the polyester-polyol, b indicates the no. of mols of the org. diisocyanate, and c indicates the no. of mols of the chain extender, and methods for producing them; molded articles comprising such thermoplastic polyurethanes and methods for producing the fibers; and laminates composed of melt-molded layers of such thermoplastic polyurethanes and fibrous base layers. The thermoplastic polyurethanes of the invention have excellent **heat** resistance, friction melt resistance, cold resistance, hydrolysis resistance and compression set and have excellent melt-moldability. The resilient polyurethane fibers of the invention have excellent **heat** resistance, wet **heat** resistance, hot water resistance, restorability of resiliency and homogeneity. The laminates of the invention have a soft hand and have excellent friction melt resistance, abrasion resistance, bleeding resistance and **whitening** resistance.

ST block polyester polyurethane rubber thermoplastic manuf; **whitening** resistance polyester polyurethane rubber laminate; bleeding resistance polyester polyurethane rubber laminate; abrasion resistance polyester polyurethane rubber laminate; resiliency polyester polyurethane rubber fiber; **water resistance** polyester polyurethane rubber fiber; friction melt resistance polyester polyurethane rubber; hydrolysis polyester polyurethane rubber; cold resistance polyester polyurethane rubber; **heat** resistance polyester polyurethane rubber

IT Polyamide fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fabrics; thermoplastic block polyester  
 -polyurethane rubbers and laminates with polyether-polyurethane-contg.  
 polyamide nonwoven fabrics)

IT Polyamides, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (nonwoven fabrics; thermoplastic block polyester

-polyurethane rubbers and laminates with polyether-polyurethane-contg. polyamide nonwoven **fabrics**)

IT Urethane rubber, preparation  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-, block; thermoplastic block polyester  
 -polyurethane rubbers and molded articles and fibers comprising them)

IT Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-; thermoplastic block polyester-polyurethane  
 rubbers and laminates with polyether-polyurethane-contg. polyamide  
 nonwoven **fabrics**)

IT Spandex fibers  
 RL: PRP (Properties)  
 (thermoplastic block polyester-polyurethane rubbers and  
 molded articles and fibers comprising them)

IT 25038-54-4, Nylon 6, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (nonwoven **fabrics**; thermoplastic block polyester  
 -polyurethane rubbers and laminates with polyether-polyurethane-contg.  
 polyamide nonwoven **fabrics**)

IT 39751-34-3P 58991-77-8P 122310-07-0P 125845-95-6P 142251-93-2P  
 151483-07-7P 186143-94-2P 186143-95-3P 186144-17-2P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (polyester precursor; thermoplastic block polyester  
 -polyurethane rubbers and molded articles and fibers comprising them)

IT 186144-02-5P 186144-06-9P 186144-08-1P 186144-12-7P 186144-15-0P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (thermoplastic block polyester-polyurethane rubbers and  
 molded articles and fibers comprising them)

L82 ANSWER 28 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1996:175723 CAPLUS  
 DN 124:204467  
 TI Polyamide compositions for biaxially stretched food packaging films with  
 good **whitening resistance** in hot water  
 IN Urabe, Hiroshi; Sugiura, Katsuhiko; Tsunoda, Morio; Kanemasa, Tomoaki  
 PA Mitsubishi Engineering-Plastics Corporation, Japan  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C08K007-14  
 ICS C08K007-02; C08G069-36  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 696615	A1	19960214	EP 1995-112603	19950810



EP 696615 B1 19991110

R: BE, DE, FR

JP 08053617 A2 19960227 JP 1994-190631 19940812

PRAI JP 1994-190631 19940812

AB The compns. comprise cryst. polyamides and fibrous materials, wherein the heat of fusion (A) of the compns. is .ltoreq.55 mJ/mg (measured by a differential scanning calorimeter after heat-treatment at 95.degree. for 60 min). Thus, a film prepd. from a mixt. of nylon 6/66 14, nylon 6/6T 70.2, hexamethylenediamine-isophthalic acid-terephthalic acid copolymer 9.8 and silane-treated glass fibers 6% showed gloss 50% and A 46 mJ/mg.

ST polyamide film food packaging; hot water resistance  
polyamide film; whitening resistance polyamide packaging film

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(fiber-reinforced polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

IT Food  
(polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

IT Polyamides, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

IT Packaging materials

(films, water-resistant, polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

IT Discoloration prevention

(whitening, polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

IT 24993-04-2, Nylon 666 25086-53-7, .epsilon.-Caprolactam-1,6-hexanediamine-terephthalic acid copolymer 25750-23-6, Hexamethylenediamine-isophthalic acid-terephthalic acid polymer 58814-83-8, Hexamethylenediamine-isophthalic acid-terephthalic acid polymer, SRU

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polyamide compns. for biaxially stretched food packaging films with good whitening resistance in hot water)

L82 ANSWER 29 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1995:833543 CAPLUS

DN 123:343248

TI Manufacture of polyurethane-coated polyester fabrics with good disperse dye migration resistance

IN Furuta, Tsunekatsu; Kijima, Yoshiaki; Uchibori, Daisuke

PA Unitika Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

KOROMA EIC1700

CODEN: JKXXAF

DT Patent/

LA Japanese

IC ICM D06M015-564

ICS D06M010-10

ICI D06M101-32

CC 40-5 (Textiles and Fibers)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07189133	A2	19950725	JP 1993-352760	19931227
PRAI	JP 1993-352760		19931227		

AB The **fabrics** are prepd. by coating disperse dye-colored polyester **fabrics** with polyurethane- or poly(amino acid urethane)-based materials, treating with low temp. plasma, and coating with the similar the polyurethanes to show inhibition of dye migration and retention of **whiteness**. Thus, a PET woven **fabric** was dyed by Miketone Blue FBL, treated with fluorescent agent, **heat set**, treated with a **water repellent**, dried, heated, coated with a compn. (A) of Hi-Muren X 3040 (polyurethane) 100, MEK 15, MePh 15, Resamine X 2, and water 40 parts, treated with low temp. air plasma, overcoated by A, and heated to give a test piece showing good dye migration resistance and **whiteness**.

ST coating polyester fiber dye migration; polyurethane coating dye migration prevention; polyamino acid polyurethane coating fiber; plasma treatment polyester fiber

IT Coating materials

Dyeing

Plasma

(manuf. of polyurethane-coated **polyester fabrics** with good dye migration resistance)

IT **Polyester** fibers, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(manuf. of polyurethane-coated **polyester fabrics** with good dye migration resistance)

IT Urethane polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(poly(amino acid)-, coatings; manuf. of polyurethane-coated **polyester fabrics** with good dye migration resistance)

IT **Polyamides**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(poly(amino acids), polyurethane-, coatings; manuf. of polyurethane-coated **polyester fabrics** with good dye migration resistance)

IT 148851-28-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings; manuf. of polyurethane-coated **polyester fabrics** with good dye migration resistance)

IT 31810-89-6

RL: TEM (Technical or engineered material use); USES (Uses)

(dyes; manuf. of polyurethane-coated polyester fabrics with good dye migration resistance)

IT 25038-59-9, PET, processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (fabric; manuf. of polyurethane-coated polyester fabrics with good dye migration resistance)

IT 171059-59-9  
 RL: POF (Polymer in formulation); USES (Uses)  
 (manuf. of polyurethane-coated polyester fabrics with good dye migration resistance)

L82 ANSWER 30 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1995:528900 CAPLUS  
 DN 123:201330  
 TI Manufacture of packaging materials  
 IN Takehara, Reiji; Ishibashi, Toshinori; Nunokawa, Yoko; Hashizume, Toyomi;  
 Takayanagi, Hitoshi  
 PA Dainippon Ink & Chemicals, Japan  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B32B015-08  
 ICS B32B027-28  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07040500	A2	19950210	JP 1993-251629	19931007
PRAI	JP 1993-127004		19930528		

AB The title procedure giving packaging materials with good boiling and retort resistance, useful for food packaging, comprise printing water-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils. Thus, (a) 52.0 parts of an ink base comprising a 39.7%-nonvolatile water-based dispersion with viscosity 540 cP contg. acrylic acid-Me methacrylate-Bu methacrylate-Bu acrylate-styrene copolymer (initial reactant ratio 36:300:132:154) 28, TiO<sub>2</sub> 30, EtOH 6, and water 4 parts, (b) 24.4 parts of a 35.6%-nonvolatile water dispersion with viscosity 340 cP contg. particles with diam. 40-nm prepd. by emulsion polymn. of Placel 212 (polycaprolactone diol) 186.9, IPDI 100.0, 2,2-dimethylolpropionic acid 20.1, Burnock DN 950S 16.2, and diethylenetriamine 5% soln. 234 parts under heating in the presence of dibutyltin dilaurate and Et<sub>3</sub>N, (c) 13.5 parts EtOH, and (d) 10.1 parts water were mixed, applied to a surface-treated PET film, dried, bonded to Al-LLDPE laminate, and aged at 50.degree. for 72 to give a test piece showing resistance to whitening, blistering, and delamination after boiling and retort test.

ST polyurethane crosslinked particle coating film; food packaging retort resistance polyurethane; water boiling resistance food packaging

- IT **Polyesters, miscellaneous**  
RL: MSC (Miscellaneous)  
(substrates; food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT **Packaging materials**  
(**heat-** and **water-resistant**, food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT **Water-resistant materials**  
(packaging, **heat-resistant**, food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT **Heat-resistant materials**  
(packaging, **water-resistant**, food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT **Urethane polymers, properties**  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(**polyester-**, food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT 162978-40-7P 168196-13-2P 168196-14-3P 168216-95-3P  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT 39527-54-3P, Acrylic acid-butyl acrylate-butyl methacrylate-methyl methacrylate-styrene copolymer  
RL: FFD (Food or feed use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(in ink bases; food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT 74-85-1D, Ethene, polymers  
RL: MSC (Miscellaneous)  
(linear, substrates; food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)
- IT 7429-90-5, Aluminum, miscellaneous

RL: MSC (Miscellaneous)

(substrates; food packaging with boiling and retort **resistance** prepd. by printing **water**-based inks contg. crosslinked polyurethane particle water dispersions followed by laminating with plastic films or metal foils)

L82 ANSWER 31 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:393778 CAPLUS

DN 133:5816

TI Finishing process for **waterproofing** cotton and cotton-polyester blend woven **fabrics**

IN Vasilica, Gheorghe; Gambuta, Dumitru; Slavoiu, Elena

PA Rom.

SO Rom., 3 pp.

CODEN: RUXXA3

DT Patent

LA Romanian

IC ICM D06M015-244

ICS D06P001-44; D06P003-82

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	RO 109225	B1	19941230	RO 1989-143417	19891220
PRAI	RO 1989-143417		19891220		

AB The process to obtain **fabrics** for camouflage tarpaulin consists on continuous padding impregnation of the **fabric** in a bath of 10-15% chlorinated paraffin (32% chlorination) as hydrophobic agent; 14-16% trichloroethylene; 2-4% kerosene; 4-6% emulsifier; 0.5-0.7% dye/pigment; and 52-70% water, followed by conventional drying and **heat** setting. A woven cotton **fabric** after singing, mercerization, **bleaching**, and drying was subjected to combined dyeing and **waterproof** finishing by padding with a compn. contg. 14% chlorinated paraffin, 15% trichloroethylene, 4% kerosene, 5% ester-epoxy-vinyl resin emulsifier (61% nonvolatiles), 61% water, and 0.7% yellow disperse dye, at 20.degree. and pH 5.5. The foulard-treated **fabric** was dried and **heat** set at 140.degree. for 4 min; the finished **fabric** shows good mech. strength and oiling finish, suitable for tarpaulins.

ST **waterproof** finishing combined dyeing **fabric** continuous process; tarpaulin cotton polyester blend oiling finish process

IT Alkanes, uses

RL: NUU (Other use, unclassified); USES (Uses)

(chloro; combined dyeing-**waterproofing** finishing process for **cotton** and **cotton-polyester** blends for tarpaulins)

IT Camouflage

Disperse dyeing

Disperse dyes

Emulsifying agents

**Waterproofing**

(combined dyeing-**waterproofing** finishing process for

cotton and cotton-polyester blends for tarpaulins)

IT Kerosene  
RL: NUU (Other use, unclassified); USES (Uses)  
(combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

IT Textiles  
(cotton-polyester; combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

IT Textiles  
(cotton; combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

IT Polyesters, uses  
Polyesters, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(epoxy, vinyl-contg.; combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

IT Epoxy resins, uses  
Epoxy resins, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(polyester-, vinyl-contg.; combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

IT 79-01-6, Trichloroethylene, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(combined dyeing-waterproofing finishing process for cotton and cotton-polyester blends for tarpaulins)

L82 ANSWER 32 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1993-209137 [26] WPIX  
DNC C1993-092956  
TI Fibre treating agent contg. fluoro-silicone type cpd. - imparts water repellent, oil repellent and anti-staining properties to fibres.  
DC A26 A87 E11 F06  
PA (NIOF) NIPPON OILS & FATS CO LTD  
CYC 1  
PI JP 05132873 A 19930528 (199326)\* 10p D06M015-356  
ADT JP 05132873 A JP 1991-293448 19911108  
PRAI JP 1991-293448 19911108  
IC ICM D06M015-356  
ICS C07F007-12; C08F030-08; C09K003-18  
AB JP 05132873 A UPAB: 19931118  
Agent contains fluorosilicone type cpd. of formula (I), its hydrolysate, hydrolysis condensate and/or their mixt. as the effective component. In (I), R1 = H or CH3; R2, R3 = trimethylsilyloxy, 1-4C alkyl, alkylcarbonyloxy or alkoxy; RF = -(CF2)n1X or gp. of formula (Ia); X = H, F or Cl; n1 = integer of 1-10; n2 = integer of 0-8; m = integer of 1-10; l

= 0 or 1 but R1 is H when l is 0.

USE/ADVANTAGE - The fibre treating agent is applied of various kinds of fibre prods. made of natural fibre, synthetic fibre, semi-synthetic fibre, blended fibres, etc. The treating agent imparts good water repellent properties, oil repellent properties, feeling, anti-staining effect, etc. to fibre and has good weather resistance and washing resistance.

In an example, 10g cpd. of formula (41) was put in 100g acetone and 0.2 g aq. 30 wt.% HCl soln. added under stirring and then heated in a N2 gas atmos. under reflux for 2 hrs. The reaction mixt. was neutralised with 2.0g propylene oxide and filtered. The filtrate was distd. under vacuum to obtain hydrolysis condensate as deposit. The deposits were dissolved in a mixed CF2CF2CHCl2 and CClF2CF2CHClF (1:1 by wt.) soln. in a concn. of 1 wt.% to obtain a treating soln. Polyester/cotton broad cloth (65/35) was dipped in the treating soln. at 100 deg.C for 2 mins. and at 170 deg.C for 2 mins. The fabric had good water repellent properties, 100, good oil repellent properties, 100 and good feeling, 22.3, c.f. 0, 0, and 16.6, respectively, for the untreated polyester/cotton broad cloth.

Dwg.0/0

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: A08-S08; A12-S05R; A12-S05S; E05-E02; F03-C02; F03-C02A; F03-C05

L82 ANSWER 33 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:131495 CAPLUS

DN 116:131495

TI Wet-laid webs for tea bags, etc.

IN Okazaki, Masaki; Sonedaka, Tomoyasu; Shibata, Tomohiko; Okifuji, Shoji; Akita, Satoshi; Ezaki, Tamemaru

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D21H013-10

ICS B65D077-12

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03287896	A2	19911218	JP 1990-85404	19900330
	JP 2582177	B2	19970219		
PRAI	JP 1990-85404		19900330		

AB Title webs providing bags with good seal strength in boiling water are papers contg. binders which are composite fibers having d. >1.0 and comprising a core component (A) from polymer having m.p. or softening temp. (St) 160-250.degree., and a sheath component (B) from polymer having m.p. or St 80-150.degree. at the A/B vol. ratio of 70-30:30-70. Thus, wet-laying a slurry contg. 50 parts bleached softwood kraft pulp and 50 parts binder from composite fibers having an A component of

polypropylene (m.p. 165.degree.) and a B component of 45 mol% isophthalic acid-contg. poly(ethylene terephthalate) (melt adhering temp. 105.degree.) at the A:B vol. ratio 50:50, and drying on a Yankee dryer gave paper for tea bags with good heat-seal strength in hot water.

- ST hot water resistant binder paper; tea bag heat sealable fiber; polypropylene polyester bicomponent fiber papermaking
- IT Polypropene fibers, uses  
RL: USES (Uses)  
(core, for composite fibers with polyester sheath, as hot-melt binders for paper used in tea bags, of specified m.p. for good seal strength)
- IT Binding materials  
(fibrous with core-sheath structure, for tea-bag paper with good heat-seal strength)
- IT Polyester fibers, uses  
RL: USES (Uses)  
(sheath, for composite with propene core, as hot-melt binders for paper used in tea bags, of specified m.p. for good seal strength)
- IT Tea products  
(bags, paper contg. specified hot-melt composite fibers as binders for, hot water resistant)
- IT Bags  
(paper, for tea, contg. specified hot-melt core/sheath fibers as binders, with good hot water resistance)
- IT 9003-07-0, Polypropylene  
RL: USES (Uses)  
(composite fibers contg. core of, as hot-melt binders for paper used in tea bags with good seal strength)
- IT 24938-04-3, Ethylene glycol-isophthalic acid-terephthalic acid copolymer  
RL: USES (Uses)  
(composite fibers contg. sheath of, as hot-melt binders for paper used in tea bags with good seal strength)

L82 ANSWER 34 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1992:215939 CAPLUS  
DN 116:215939  
TI Polyester films with coated layers for printing sheets  
IN Seki, Shigemi; Nakahara, Katsuji; Aoki, Seizo  
PA Toray Industries, Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM B32B027-36  
ICS B41M005-00  
ICA C08J007-04  
CC 38-3 (Plastics Fabrication and Uses)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03261555	A2	19911121	JP 1990-59587	19900309
	JP 3021519	B2	20000315		



- PRAI JP 1990-59587 19900309
- AB The title sheets, with good **whiteness**, cushion rate, dimensional stability, printability, ink adhesion, and **water** and solvent **resistance**, are prepd. from polyester base films with **heat** shrinkage at 150.degree. (S150) <2% and d. <0.95, and coated layers of alkoxysilanes or hydrophobic polyesters contg. grafted glycidyl-contg. unsatd. compds. Thus, a 88:10:2 PET-poly(4-methyl-pentene-1) (I; TPX d820)-polyethylene glycol blend was coextruded with surface layers of PET contg. 0.01% OB-1 (CaCO<sub>3</sub>), biaxially oriented, and **heat** set to give a 5:90:5 (.mu.m) laminated film, which was coated with a Pes 230G (grafted polyester) soln. and dried to give a printable sheet with a 2.0-.mu.m coated layer having sp. gr. 0.77, cushion rate 18%, and S150 0.7 and 0.2% in the machine and transverse direction, resp., vs. 1.00, 4, 1.6 and 1.0, resp., for a sheet contg. polypropylene instead of I.
- ST PET polymethylpentene blend dimensional stability; **heat** shrinkage PET polymethylpentene blend; printing sheet PET polymethylpentene blend; polyethylene glycol PET polymethylpentene blend; grafted polyester coated printable PET
- IT Silanes  
 RL: USES (Uses)  
 (alkoxy, applied on **polyester** films, for low-d. printable sheets)
- IT Paper substitutes  
 (grafted **polyester**-coated **polyester** films as, low-d. and printable and dimensionally stable)
- IT Plastics, laminated  
 RL: USES (Uses)  
 (multilayer **polyester** films with grafted **polyester** or alkoxysilane layers, low-d. and printable and dimensionally stable)
- IT **Polyesters**, uses  
 RL: USES (Uses)  
 (graft polymers, coated on **polyester** films, for low-d. printable sheets)
- IT 131594-90-6, Pes 230G  
 RL: USES (Uses)  
 (applied on **polyester** films, for low-d. printable sheets)
- IT 25038-59-9, PET **polyester**, uses  
 RL: USES (Uses)  
 (blends with polymethylpentene and polyethylene glycol, for low-d. coated printable sheets)
- IT 86472-86-8, Coronate EH  
 RL: USES (Uses)  
 (hardeners, grafted **polyesters** contg., applied on **polyester** films, for low-d. printable sheets)
- IT 25155-83-3, TPX-DX 820  
 RL: USES (Uses)  
 (**polyester** contg. polyethylene glycol and, for low-d. coated printable sheets)
- IT 25068-26-2, Poly(4-methylpentene-1)  
 RL: USES (Uses)  
 (**polyesters** contg. polyethylene glycol and, for low-d. coated printable sheets)

IT 25322-68-3, Polyethylene glycol  
 RL: USES (Uses)  
 (polyesters contg. polymethypentene and, for low-d. coated printable sheets)

IT 471-34-1, Calcium carbonate, uses 13463-67-7, Titanium dioxide, uses  
 RL: USES (Uses)  
 (polyesters contg., for low-d. coated printable sheets)

L82 ANSWER 35 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:473220 CAPLUS  
 DN 115:73220  
 TI Gas-barrier polyamide-vinylidene chloride polymer laminate films  
 IN Ichiki, Makoto; Moriyama, Tamio; Taniguchi, Satoru  
 PA Kohjin Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B32B027-30  
 ICS B32B027-34; C08J007-04  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02217245	A2	19900830	JP 1989-73843	19890328
	JP 2700406	B2	19980121		
PRAI	JP 1988-274537		19881101		

AB The title films, with good antiblocking, transparent, printing, and heat-sealing properties, useful for packaging, etc., are prepd. by forming layers of vinylidene chloride polymers contg. 0.02-1.0 phr spherical particles providing 0 .ltoreq.  $[D + (.sigma./2) - t]$  .ltoreq. t (t = layer thickness, D = av. particle diam., .sigma. = std. deviation of the diam.) on the substrates. Thus, a 15-.mu.m Bonyl film was corona-treated, coated 0.4 g/m2 with Adcote 502 (adhesive), and formed into a 3-.mu.m layer of Saran L-511 contg. 0.20% AMT Silica 300BTE (I) to give a film having good antiblocking, friction coeff. (of the coated layer and the substrate) 0.38, haze 1.9%, good printability, boiling water resistance of sealing (haze and appearance after being dipped 30 min in boiling water) 14.6%, and good appearance, vs. poor antiblocking, 0.83, 3.0, bad printability, 28.9, and whitening, resp., for a film with a coating contg. Syloid 72 (amorphous porous silica) instead of I.

ST polyamide polyvinylidene chloride laminate packaging; spherical silica polyvinylidene chloride film; antiblocking polyvinylidene chloride polyamide laminate; transparency polyvinylidene chloride polyamide laminate; boiling water resistance polyamide packaging

IT Polyamides, uses and miscellaneous  
 RL: USES (Uses)  
 (films, laminated with spherical particle-contg. vinylidene chloride polymers, for gas-barrier packagings)

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)

(spherical, vinylidene chloride polymer films contg., laminated with **polyamides**, for gas-barrier packaging)

IT Silsesquioxanes  
RL: USES (Uses)  
(Me, spherical, vinylidene chloride polymer films contg., laminated with **polyamides**, for gas-barrier packagings)

IT Packaging materials  
(films, gas-impermeable, multilayer, **water-resistant**, laminates of **polyamides** and vinylidene chloride polymer films contg. spherical particles as)

IT 88813-65-4, Bonyl  
RL: USES (Uses)  
(films, laminated with spherical particle-contg. vinylidene chloride polymers, for gas-barrier packagings)

IT 135153-19-4, Saran L 511  
RL: USES (Uses)  
(films, spherical particle-contg., laminated with **polyamides**, for gas-barrier packagings)

IT 7631-86-9, Silica, uses and miscellaneous 25035-72-7  
RL: USES (Uses)  
(spherical, vinylidene chloride polymer films contg., laminated with **polyamides**, for gas-barrier packagings)

L82 ANSWER 36 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:100627 CAPLUS

DN 112:100627

TI Finishing **fabrics** for washfast odor absorption properties

IN Ito, Kiyoshi; Matsuda, Yoshifumi

PA Nisshinbo Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M021-00

ICS A61L009-16; D06M013-00; D06M013-02; D06M013-18; D06M013-36;  
D06M015-00

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>JP 01213484</u>	A2	19890828	JP 1988-32807	19880217
	JP 2557449	B2	19961127		
PRAI	JP 1988-32807		19880217		

AB In the title process, **fabrics** of natural or synthetic fibers or their blends are treated with liqs. contg. flavones, terpenes, or porphyrins, **waterproofing** agents reactable with cellulosic fibers, and resin finishing agents and then **heat** treated. Thus, a **bleached** cotton **fabric** was immersed in a liq. contg. Super Clean KS-YM (I., terpene) 5, Paradit RSN (**waterproofing** agent) 15, Sumitex M3 (melamine resin) 30, and Zn fluoroboride 4 g and 500 mL H2O, squeezed to 100% pickup, dried, and **heat** treated 3 min at 140.degree. to give a **fabric** with H2S absorption 80%

- (initially) and 45% (after 30 washing) after sealing 10 g **fabric** in a tube contg. H<sub>2</sub>S for 1 h, vs. 80% and 0%, resp., for the **fabric** treated with I only.
- ST washfastness cotton **fabric** odor absorbent; terpene deodorant  
contg cotton **fabric**; aminoplast treatment cotton odor absorbent
- IT Odor and Odorous substances  
(absorbents for, **fabrics** coated with resins contg. deodorants  
and cellulose-reactive **waterproofing** agents for)
- IT Synthetic fibers, polymeric  
RL: USES (Uses)  
(coated with resins contg. deodorants and cellulose-reactive  
**waterproofing**, odor-absorbing, washfast)
- IT **Textiles**  
(coated with resins contg. deodorants and cellulose-reactive  
**waterproofingagents**, odor-absorbing, washfast)
- IT **Polyester** fibers, uses and miscellaneous  
RL: USES (Uses)  
(cotton blends, coated with resins contg. deodorants and  
cellulose-reactive **waterproofing** agents, odor-absorbing,  
washfast)
- IT Flavonoids  
Porphyrins  
Terpenes and Terpenoids, uses and miscellaneous  
RL: USES (Uses)  
(deodorants, **textiles** impregnated with, washfastness  
improvement of)
- IT Deodorants  
(finishes, contg. cellulose-reactive **waterproofing** agents and  
melamine resins, for **textiles**, washfast)
- IT Epoxy resins, uses and miscellaneous  
RL: USES (Uses)  
(odor-absorbing finishes contg., for **textiles**, for improved  
washfastness)
- IT Chlorophylls, compounds  
RL: USES (Uses)  
(complexes, with iron, deodorants, **textiles** impregnated with,  
washfastness improvement of)
- IT **Textiles**  
(cotton, coated with resins contg. deodorants and  
cellulose-reactive **waterproofingagents**, odor-absorbing,  
washfast)
- IT **Textiles**  
(cotton-polyester, coated with resins contg.  
deodorants and cellulose-reactive **waterproofingagents**,  
odor-absorbing, washfast)
- IT 7664-41-7, Ammonia, properties 7783-06-4, Hydrogen sulfide, properties  
RL: PRP (Properties)  
(absorption of, **fabrics** coated with deodorants for)
- IT 7439-89-6D, Iron, complexes with chlorophylls 113956-51-7, Super clean  
KS-YM 125521-97-3, Asutenchi P 110  
RL: USES (Uses)  
(cotton **fabrics** impregnated with, for odor

absorbents, washfastness improvement of)

IT 63800-37-3, Pansil  
RL: USES (Uses)  
(deodorants, polyester-cotton blends, impregnated with, washfastness improvement of)

IT 29317-04-2, Denacol EX 810  
RL: USES (Uses)  
(odor-absorbing finishes contg., for cotton fabrics, for improved washfastness)

IT 108-78-1D, 1,3,5-Triazine-2,4,6-triamine, polymers 120-93-4D, Ethyleneurea, alkyl derivs. 1854-26-8, Sumitex FSK 4991-32-6, Paragium RC 9003-08-1 125523-83-3, Paradit RSN 125523-84-4, Paragium AV 125523-86-6, Petrox 3000  
RL: USES (Uses)  
(odor-absorbing finishes contg., for textiles, for improved washfastness)

IT 9004-34-6  
RL: USES (Uses)  
(textiles, coated with resins contg. deodorants and cellulose-reactive waterproofingagents, odor-absorbing, washfast)

IT 9004-34-6  
RL: USES (Uses)  
(textiles, cotton, coated with resins contg. deodorants and cellulose-reactive waterproofingagents, odor-absorbing, washfast)

IT 9004-34-6  
RL: USES (Uses)  
(textiles, cotton-polyester, coated with resins contg. deodorants and cellulose-reactive waterproofingagents, odor-absorbing, washfast)

L82 ANSWER 37 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1989:555448 CAPLUS  
DN 111:155448  
TI Preparation of heat- and solvent-resistant laminates  
IN Kurahashi, Akio  
PA Shin-Kobe Electric Machinery Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C08J005-24  
ICS B32B027-04; B32B027-38  
CC 38-3 (Plastics Fabrication and Uses)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 64000130	A2	19890105	JP 1987-190658	19870730
	JP 04046975	B4	19920731		
PRAI	JP 1987-43643		19870226		
AB	Laminates with good humidity resistance and insulating properties are				

prepd. by heating reactive MeO- or EtO-contg. organopolysiloxanes and bisphenol epoxy resins in the presence of p-Me-C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H (I) in CO<sub>2</sub> gas, blending the products with phenol novolak resin crosslinkers, impregnating base materials with the varnish thus obtained to give prepregs, drying, stacking, and press molding them. Thus, a mixt. of phenylethoxypolysiloxane 100, Epon 828 50, and I 2 g (in 1 mL H<sub>2</sub>O) was heated at 160.degree. for 90 min in CO<sub>2</sub> to obtain a resin, which (100 parts) was mixed with 10 parts phenol novolak resin and MEK to give a varnish. Glass clothes (0.18-mm) were impregnated with the varnish and dried to obtain prepregs (45% solids), and 8 of them were stacked and press molded to give a laminate showing insulative resistivity 2 .times. 10<sup>10</sup> .OMEGA., no change in toluene for 30 min, heat distortion temp. 160.degree., excellent punching processability at 40-60.degree., vs. 2 .times. 10<sup>8</sup>, whitening, 125, bad, resp., for a laminate using a varnish prepd. from 100 parts silicone resin, 0.1 part N(C<sub>2</sub>H<sub>5</sub>OH)<sub>3</sub>, and Me<sub>2</sub>CO.

- ST thermosetting resin laminate heatproof; solvent resistance thermosetting resin laminate; silicone epoxy novolak laminate
- IT Chemically resistant materials
  - Heat-resistant materials
  - Water-resistant materials
  - (laminates, impregnated with reaction products of reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol epoxy resins)
- IT Plastics, laminated
  - RL: USES (Uses)
  - (phenol novolak resin blends with reaction products of reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol epoxy resins, heat- and solvent-resistant)
- IT Crosslinking agents
  - (phenol novolak resins, blends with reaction products from reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol epoxy resins, for laminates)
- IT Epoxy resins, compounds
  - RL: USES (Uses)
  - (bisphenol-based, reaction products, with ethoxy or methoxy group-contg. silicones, prepd. in presence of toluenesulfonic acid and carbon dioxide, phenol novolak resin blends, for laminates)
- IT Siloxanes and Silicones, compounds
  - RL: USES (Uses)
  - (ethoxy Ph, reaction products, with bisphenol epoxy resins, prepd. in presence of toluenesulfonic acid and carbon dioxide, phenol novolak resin blends, for laminates)
- IT Siloxanes and Silicones, compounds
  - RL: USES (Uses)
  - (ethoxy, reaction products, with bisphenol epoxy resins, prepd. in presence of toluenesulfonic acid and carbon dioxide, phenol novolak resin blends, for laminates)
- IT Siloxanes and Silicones, compounds
  - RL: USES (Uses)
  - (methoxy, reaction products, with bisphenol epoxy resins, prepd. in presence of toluenesulfonic acid and carbon dioxide, phenol novolak resin blends, for laminates)

- \*IT Phenolic resins, uses and miscellaneous  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (novolak, crosslinking agents, blends with reaction products from reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol epoxy resins, for laminates)
- IT 9003-35-4, Paraformaldehyde-phenol copolymer 9052-98-6  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (crosslinking agents, blends with reaction products from reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol epoxy resins, for laminates)
- IT 25068-38-6DP, reaction products with phenylethoxypolysiloxane  
 RL: PREP (Preparation)  
 (prepn. of, in presence of toluenesulfonic acid and carbon dioxide, phenol novolak resin blends, for laminates)
- IT 104-15-4, p-Toluenesulfonic acid, uses and miscellaneous 124-38-9, Carbon dioxide, uses and miscellaneous  
 RL: USES (Uses)  
 (reaction of reactive ethoxy or methoxy group-contg. organopolysiloxanes and bisphenol type epoxy resins in presence of)

L82 ANSWER 38 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1989:214827 CAPLUS  
 DN 110:214827  
 TI Aqueous poly(meth)acrylate coating compositions for food or beverage cans  
 IN Inoue, Akira; Nakamura, Tetsuhisa; Ueno, Masanori; Ono, Isamu  
 PA Toyo Ink Mfg. Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09D003-81  
 ICS C09D003-52; C09D003-66; C09D003-81  
 CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63230779	A2	19880927	JP 1987-64397	19870320
PRAI	JP 1987-64397		19870320		

AB Title compns., with excellent processability and water resistance in thermal sterilization of food or beverage cans, contain aq. acrylic copolymers [comprising .alpha.,.beta.-ethylenically unsatd. carboxylic acids, C1-5 hydroxyalkyl (meth)acrylates, and vinyl monomers] dissolved or dispersed in H2O by volatile bases 10-80, polyester polyols (mol. wt. .gtoreq.500) 5-40, and amine-HCHO condensates 15-50%. A mixt. of acrylic acid 10, 2-hydroxyethyl methacrylate 15, Bu acrylate 50, Et acrylate 25, and Bz2O2 2 parts was dropwise added to 100 parts BuOH at 105.degree. over 3 h under N and the reaction mixt. was stirred at 105.degree. for 1 h, mixed with 0.3 parts Bz2O2 for 1 h, and BuOH was removed in the presence of 12 parts Me2NCH2CH2OH and 200 parts H2O at 80.degree. in vacuo to give aq. copolymer (solid content 60%, contg. 10% BuOH). The aq. copolymer soln. 29.2, diethylene glycol-terminated adipic acid-ethylene glycol-phthalic anhydride copolymer (I) xylene soln. (solid

content 79%) 8.9, Cymel 303 10.5, amine-blocked p-toluenesulfonic acid 0.1, and H2O 51.3 parts were mixed, coated on a plated tinplate, and cured at 190.degree. for 10 min to give test pieces showing no **whitening** when soaked in H2O at 100.degree. for 30 min, Erichsen test >8 mm, DuPont impact strength 50 cm, pencil hardness 4H, excellent peel resistance, gloss 99, and excellent processability, vs. **whitening**, >8 mm, 50 cm, 2H, excellent, 99; and excellent, resp., for controls prepd. similarly with 1:10 bisphenol A-ethylene oxide adduct instead of I. The aq. copolymer compn. could be stored for >2 mo.

ST aq polyacrylate coating can; hydroxy terminated polyester coating can; amine formaldehyde condensate crosslinking coating; **water heat resistance** polymethacrylate coating

IT Cans  
(food, coatings contg. poly(meth)acrylates and **polyester** polyols and amine-formaldehyde condensates for, **heat- and water-resistant**)

IT Coating materials  
(**heat- and water-resistant**, **water** -thinned, for cans, contg. poly(meth)acrylates and **polyester** polyols and amine-formaldehyde condensates)

IT 51023-41-7 120619-57-0  
RL: USES (Uses)  
(aq. coating compns. contg. poly(meth)acrylates and amine-formaldehyde condensates and, for cans, **water- and heat-resistant**)

IT 9003-08-1, Cymel 303  
RL: USES (Uses)  
(aq. coating compns. contg. poly(meth)acrylates and **polyester** polyols and for cans, **water- and heat-resistant**)


IT 120603-31-8 120641-40-9  
RL: USES (Uses)  
(aq. coating compns. contg. **polyester** polyols and amine-formaldehyde condensates and, for cans, **water- and heat-resistant**)

L82 ANSWER 39 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1988:633012 CAPLUS  
DN 109:233012  
TI **Heat-sealable paper for tea bags**  
IN Higashimori, Shosuke  
PA Kuraray Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM D21H005-20  
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63159599	A2	19880702	JP 1986-314602	19861223



PRAI JP 1986-314602 19861223  
AB The title paper comprises 20-80% polyester fibers having birefringence (Dn) .ltoreq.0.035 and 20-80% wood pulp. Thus, paper comprising 60% softwood bleached kraft pulp (CSF 550 mL) and 40% polyester fiber [prepd. from PET, 15 mol% (dicarboxylic acid basis), and Dn 0.006] was prepd. showing good strength after boiling in water and heat sealability, vs. poor and poor, resp., for paper contg. poly(vinyl alc.) fiber binder in place of the polyester fiber.  
ST polyester fiber tea bag paper; birefringence polyester fiber paper  
IT Tea products  
(heat-sealable papers for holding, contg. polyester fiber)  
IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(of specified birefringence, tea bags contg. wood pulp and)  
IT Pulp, cellulose  
Rayon, uses and miscellaneous  
RL: USES (Uses)  
(polyester fibers and, for heat-sealable, boiling water-resistant tea bags)  
IT Bags  
(paper, for tea, contg. polyester fibers, heat-sealable)  
IT 24938-04-3, Ethyleneglycol-isophthalic acid-terephthalic acid copolymer  
RL: USES (Uses)  
(fibers, binders, for tea bag papers)  
IT 9004-34-6  
RL: USES (Uses)  
(pulp, polyester fibers and, for heat-sealable, boiling water-resistant tea bags)  
IT 9004-34-6  
RL: USES (Uses)  
(rayon, polyester fibers and, for heat-sealable, boiling water-resistant tea bags)  
  
L82 ANSWER 40 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1988:214083 CAPLUS  
DN 108:214083  
TI Thermal recording material containing bis(4-hydroxyphenylthioalkoxy)methanes developer and having protective layer  
IN Nagamoto, Masanaka; Yaguchi, Hiroshi  
PA Ricoh Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41M005-18  
ICS B41M005-18  
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE



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PI JP 62270383 A2 19871124 JP 1986-115341 19860520

PRAI JP 1986-115341 19860520

AB A thermal recording material has a color-forming layer contg. a leuco dye and .gtoreq.1 CH<sub>2</sub>[O(CH<sub>2</sub>)<sub>n</sub>SC<sub>6</sub>H<sub>4</sub>OH-4]2 (I; n = 1, 2) as a developer and a protective layer contg. poly(vinyl alc.) (II), Me cellulose (III), and a **waterproofing** agent. The material shows high **heat** sensitivity and provides images free from **bleaching** and **whitening**. Thus, a paper support was successively coated with an aq. II soln. contg. 3-(N-methyl-N-cyclohexyl)amino-6-methyl-7-anilinofluoran, I (n = 2), and CaCO<sub>3</sub> and an aq. soln. contg. Syloid 244 (silica), a polyamide-epichlorohydrin resin, II, and III. The obtained sheet was thermally recorded to exhibit good storage stability at both the image area and the background and showed resistance to cottonseed oil and plasticizers in a poly(vinyl chloride) film.

ST thermal recording material protective layer; methane hydroxyphenylthioalkoxy thermal recording; developer; thiophenol deriv thermal recording developer; hydroxyphenylthioalkyl ether thermal recording developer

IT **Polyamides**, uses and miscellaneous  
RL: USES (Uses)  
(epichlorohydrin-modified, thermal recording material contg.)

IT Printing, nonimpact  
(thermal, paper, color developer and protective layer for)

IT 93589-69-6 93608-42-5  
RL: USES (Uses)  
(developer, for thermal recording material)

IT 55250-84-5  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal recording material contg., protective layer and color developer for)

IT 106-89-8D, Epichlorohydrin, reaction product with **polyamides**  
9004-67-5, Methylcellulose  
RL: USES (Uses)  
(thermal recording material protective layer contg.)

L82 ANSWER 41 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1988:46874 CAPLUS

DN 108:46874

TI Photosensitive material for electrophotographic material for printing plate preparation

IN Nakao, Sho

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G005-10  
ICS G03G013-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 62098362	A2	19870507	JP 1985-237665	19851025
	JP 05051910	B4	19930803		
PRAI	JP 1985-237665		19851025		
AB	C fiber-contg. thermoplastic resin pulp layers are formed on both sides of an elec. conductive paper support by heat hardening to give elec. conductive and <b>waterproofing</b> layers and an interface layer and a photoconductive layer are formed on one side of the coated support to give the title material. The photosensitive material is prepd. simply at low cost and provides long-life printing plates. Thus, an aq. dispersion (A) of SWP UL400 (ethylene polymer) and C fiber, an aq. dispersion of broad-leaved <b>bleached</b> kraft pulp contg. Na stearate, CO <sub>2</sub> H-modified poly(vinyl alc.), and AlCl <sub>3</sub> , and A were laminated and made into paper, dried, and <b>heat-hardened</b> to manuf. a trilayered elec. conductive and <b>waterproofing</b> paper. An interface layer of alc.-sol. <b>nylon</b> and acetylene black and a photoconductive layer of Bu methacrylate-Me methacrylate copolymer, ZnO, and Rose Bengal were formed on the paper to give an electrophotog. material from which an offset printing plate was made.				
ST	photosensitive electrophotog material printing plate; conductive paper support electrophotog; <b>waterproofing</b> paper support electrophotog				
IT	Polypropene fibers, uses and miscellaneous RL: PREP (Preparation) (composites with polyethylene fibers, conductive paper support from, with carbon fiber, for electrophotog. material for printing plate prepn.)				
IT	Electrophotographic plates (conductive paper supports for, for offset printing plate prepn.)				
IT	Carbon black, uses and miscellaneous <b>Polyamides</b> , uses and miscellaneous RL: PREP (Preparation) (interlayers contg., for electrophotog. materials for printing plate prepn.)				
IT	Carbon fibers, uses and miscellaneous RL: PREP (Preparation) (thermoplastic resin layer contg., for electrophotog material for printing plate prepn.)				
IT	Synthetic fibers, polymeric RL: PREP (Preparation) (ethylene, conductive paper support from, with carbon fiber, for electrophotog. material for printing plate prepn.)				
IT	Lithographic plates (offset, elec. conductive and <b>waterproofing</b> paper support for electrophotog. material for prepn. of)				
IT	7440-44-0 RL: USES (Uses) (carbon fibers, thermoplastic resin layer contg., for electrophotog material for printing plate prepn.)				
IT	9002-88-4 RL: USES (Uses) (fiber, composites with polypropene fibers, conductive paper support				

from, with carbon fiber, for electrophotog. material for printing plate  
prepn.)

IT 7631-86-9, Snowtex C, uses and miscellaneous 25053-53-6

RL: USES (Uses)

(interlayer contg., for electrophotog. material for printing plate  
prepn.)

IT 1314-13-2, Zinc oxide, uses and miscellaneous 25608-33-7, Butyl  
methacrylate-methyl methacrylate copolymer

RL: USES (Uses)

(photoconductive layer contg., for electrophotog. material for printing  
plate prepn.)

L82 ANSWER 42 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1987:424773 CAPLUS

DN 107:24773

TI **Waterproofed** fiber products with water-absorbing property

IN Aoki, Kiyoshi; Nonaka, Toyochi

PA Kanebo, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M013-00

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61275471	A2	19861205	JP 1985-115037	19850527
PRAI	JP 1985-115037		19850527		

AB Two-layered **fabrics** composed of polyester fiber surface and  
cotton or polyester/cotton blend yarn back are treated with **water**  
**repellents** on the surface and **heat-set** to give title  
**fabrics** with durable moisture absorptivity. Thus, a polyester  
cotton double weave **fabric** was scoured, steamed,  
**bleached**, and **heat-set**, and the polyester side was  
treated with a foam contg. 20% Asahiguard AG710, Sumitex M 6, Sumitex  
Resin Accelerator ACX, and Meifoamer F218. The **fabric** was then  
dried at 130.degree. and cured at 170.degree. to give a **fabric**  
with **water repellency** rating (JIS L 1092) 100,  
(initially), 90 after 10 washings, and 80 after 10 dry cleanings, and  
water absorbing time 1 s (initially), 1 s after washings, and 1 s after 10  
dry cleanings, vs. 100, 90, 80, .gtoreq.120 s, 40 s, and 55 s, resp.,  
using a polyester back **fabric** instead of cotton back.

ST polyester blend **fabric waterproof** hygroscopic; cotton  
polyester **fabric waterproof** hygroscopic

IT **Polyester** fibers, uses and miscellaneous

RL: USES (Uses)

(cotton blends, finishing of, with improved **water**  
**repellency** and moisture permeability)

IT **Waterproofing**

(of **textiles**, with improved moisture permeability)

IT Fluoropolymers

RL: USES (Uses)  
 (waterproofing agents, for cotton-polyester  
 textiles,)

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (fluoro, waterproofing agents, for cotton-  
 polyester textiles,)

IT Fluoropolymers  
 RL: USES (Uses)  
 (siloxane-, waterproofing agents, for cotton-  
 polyester textiles,)

IT 9003-08-1, Sumitex M 6  
 RL: USES (Uses)  
 (textiles finished with water repellents  
 and, for improved fastness)

IT 42610-70-8, Asahiguard AG 710  
 RL: USES (Uses)  
 (waterproofing agents, for cotton-polyester  
 textiles,)

L82 ANSWER 43 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:35824 CAPLUS  
 DN 104:35824  
 TI Treatment of cellulose fibers and production of composite materials of the  
 treated cellulose fibers in combination with resins  
 IN Zadorecki, Pawel; Flodin, Per  
 PA Polyrand AB, Swed.; Polycell Kompositer  
 SO PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English  
 IC ICM D06M013-34  
 ICS C08J005-06; D21H003-02  
 CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)  
 Section cross-reference(s): 37

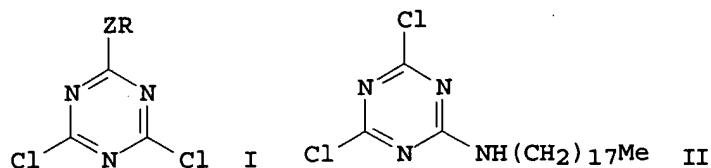
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8504200	A1	19850926	WO 1985-SE125	19850319
	W: FI, JP, US				
	RW: AT, BE, CH, DE, FR, GB, LU, NL, SE				
	SE 8401500	A	19850920	SE 1984-1500	19840319
	SE 460360	B	19891002		
	SE 460360	C	19900201		
	EP 202233	A1	19861126	EP 1985-901638	19850319
	R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE				
	JP 61502968	T2	19861218	JP 1985-501501	19850319
	US 5143791	A	19920901	US 1992-826686	19920129
PRAI	SE 1984-1500		19840319		
	WO 1985-SE125		19850319		
	US 1985-802206		19851119		
	US 1989-300236		19890123		

US 1991-638032

19910107

GI



AB A method of pretreatment of cellulosic fibers comprises initially treating the fibers with a soln., dispersion, or melt of reagent I (HZR = OH-contg. compd. or amine; R = alkyl, aryl, aralkyl, or a chain having .gtoreq.1 polymerizable double bond) and in the second step treating the fibers with an alk. reagent combined with a heat treatment. The pretreated fibers are useful as reinforcements in the manuf. of composites. Thus, **bleached** kraft pulp fibers were impregnated with a 0.5% CHCl<sub>3</sub> soln. of II, dried, treated with 0.05M NaOH, **heat-treated** at 90.degree. for 30 min, washed, and dried. The contact angle of H<sub>2</sub>O on paper from the treated pulp was 120.degree., compared with 0.degree. for untreated paper.

ST pulp fiber **waterproofing** triazine deriv; cellulosic fiber pretreatment triazine deriv; composite modified pulp reinforcement

IT Paper  
(contact angle of, with water, dichlorotriazinamine deriv. effect on)

IT Linters  
(cotton, **waterproofing** of, with dichlorotriazinamine derivs.)

IT Pulp, cellulose  
(**waterproofing** of **bleached**, with dichlorotriazinamine derivs.)

IT **Waterproofing**  
(agents, dichlorotriazinamines, for cellulose pulp fibers)

IT Plastics, reinforced  
RL: USES (Uses)  
(cellulosic fiber-, manuf. of, fiber pretreatment for hydrophobization in)

IT **Polyesters**, uses and miscellaneous  
RL: USES (Uses)  
(unsatd., composites with dichlorotriazine deriv.-modified cellulosic fibers, manuf. of)

IT 75302-11-3P 99550-43-3P  
RL: PREP (Preparation)  
(composites with dichlorotriazine deriv.-modified cellulosic fibers, manuf. of)

IT 39200-09-4 46409-23-8 52643-21-7  
RL: USES (Uses)  
(**waterproofing** by, of **bleached** kraft pulp fibers)

IT 10096-71-6  
 RL: USES. (Uses)  
 (waterproofing by, of bleached kraft pulp fibers or  
 cotton linters)

L82 ANSWER 44 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1986:452240 CAPLUS  
 DN 105:52240  
 TI Heat-sensitive recording materials  
 IN Yamori, Tsunefumi; Okauchi, Shuki; Fujioka, Hironari  
 PA Kanzaki Paper Mfg. Co., Ltd., Japan  
 SO Eur. Pat. Appl., 45 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM B41M005-26  
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 159659	A2	19851030	EP 1985-104632	19850417
	EP 159659	A3	19870527		
	EP 159659	B1	19900725		
	R: DE, FR, GB				
	JP 60220786	A2	19851105	JP 1984-78216	19840417
	JP 03076678	B4	19911206		
	US 4623557	A	19861118	US 1985-723342	19850415
	JP 04331185	A2	19921119	JP 1991-52754	19910318
	JP 05045433	B4	19930709		
PRAI	JP 1984-78216		19840417		

AB Heat-sensitive recording materials with recorded images highly  
 resistant to high humidity conditions are prep'd. by coating a support with  
 a compn. comprised of a color former, a color developer, and .gtoreq.1 of  
 a water-sol. binder and a water-dispersible binder and irradiating the  
 coated recording layer with an electron beam. Images recorded on the  
 materials exhibit superior stability and the moistened recorded images do  
 not fade when rubbed with the fingers. Thus,  
 3,3-bis(p-dimethylaminophenyl)-6-dimethylaminophthalide 10, a 5% aq. soln.  
 of poly(vinyl alc.) (deg. sapon. 98% and d. p. 1100) (I) 10, and H2O 15  
 parts were mixed to give a dispersion (A). 4,4'-Isopropylidenediphenol  
 20, a 5% aq. soln. of I 10, and H2O 40 parts were also mixed to give a  
 dispersion (B). Then A 35, B 70, CaCO3 25, an anhyd. SiO2 powder 25, and  
 a 15% aq. soln. of I 270 parts were mixed, coated on a paper support at  
 5.0 g/m2 (dry), irradiated with 2 Mrad of an electron beam (acceleration  
 voltage of 170 KV), and dried to give a heat-sensitive recording  
 paper. The recording paper was imaged in a facsimile app. to give a color  
 d. of 1.30. The color d. was reduced to 1.07 when the recorded paper was  
 stored at 40.degree. and 90% relative humidity for 50 h. The recorded  
 images also showed good water resistance.

ST thermal recording material crosslinked binder; moisture resistant thermal  
 recording material

- IT Caseins, uses and miscellaneous  
RL: USES (Uses)  
(thermal recording materials contg. binder from crosslinked, for improved resistance to moisture)
- IT Epoxy resins, uses and miscellaneous  
Urethane polymers, uses and miscellaneous  
RL: USES (Uses)  
(acrylic, thermal recording materials contg. binder of crosslinked, for improved resistance to moisture)
- IT Acrylic polymers, uses and miscellaneous  
RL: USES (Uses)  
(epoxy, thermal recording materials contg. binder of crosslinked, for improved resistance to moisture)
- IT **Polyesters**, uses and miscellaneous  
RL: USES (Uses)  
(polyacrylate-, thermal recording materials contg. binder of crosslinked, for improved resistance to moisture)
- IT Acrylic polymers, uses and miscellaneous  
RL: USES (Uses)  
(polyurethane-, thermal recording materials contg. binder of crosslinked, for improved resistance to moisture)
- IT Recording materials  
(thermal, contg. crosslinked binder for improved resistance to moisture)
- IT 9002-89-5 9002-89-5D, sulfonated 9003-55-8 9004-67-5 9005-25-8D, oxidized 36446-02-3 39290-68-1 52410-51-2 85922-82-3  
RL: USES (Uses)  
(thermal recording materials contg. binder of crosslinked, for improved resistance to moisture)
- IT 471-34-1, uses and miscellaneous 7631-86-9, uses and miscellaneous  
RL: USES (Uses)  
(thermal recording materials contg. leuco dye and phenolic developer and, with crosslinked binder for improved resistance to moisture)
- IT 80-05-7, uses and miscellaneous  
RL: USES (Uses)  
(thermal recording materials contg. leuco dye and, with crosslinked binder for improved resistance to moisture)
- IT 1552-42-7  
RL: USES (Uses)  
(thermal recording materials contg. phenolic developer and, with crosslinked binder for improved resistance to moisture)

L82 ANSWER 45 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1987:86192 CAPLUS  
DN 106:86192  
TI Aqueous silicone dispersions and their use as a textile treating agent  
IN Steinberger, Helmut; Kirschnek, Helmut; Pfeiffer, Josef  
PA Bayer A.-G., Fed. Rep. Ger.  
SO Ger. Offen., 40 pp.  
CODEN: GWXXBX  
DT Patent  
LA German



- IC C08L083-06; C08L023-06; C08J003-06; D06M015-66

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 46

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3244955	A1	19840607	DE 1982-3244955	19821204
	US 4524172	A	19850618	US 1983-550834	19831114
	EP 110290	A2	19840613	EP 1983-111639	19831122
	EP 110290	A3	19840718		
	EP 110290	B1	19870204		
	R: BE, DE, FR, GB, IT, NL				
	JP 59113056	A2	19840629	JP 1983-224610	19831130
	JP 01003912	B4	19890124		
PRAI	DE 1982-3244955		19821204		

- AB Aq. dispersions are prepd. which contain a polyether-siloxane  
 $\text{RO}[(\text{SiMe}_2\text{O})_x\text{SiMe}[(\text{OSiMe}_2)_x\text{OR}](\text{OSiMe}_2)_x]\text{yZ}(\text{SiMe}_2\text{O})_x\text{SiMe}[(\text{OSiMe}_2)_x\text{OR}](\text{OSiMe}_2)_x\text{OR}$   
 (Z = divalent C2-8 alkyleneoxy, esp. butyleneoxy; R = polyether residue; x = 2-25; y = 1-9) 1-30, polyethylene (mol. wt. 15,000-50,000) 1-40, anionic emulsifiers 1-10, nonionic emulsifiers 0-15, and water 2-97 parts. The dispersions are useful for the finishing of textiles in the padding mangle and drawing processes. The finished textiles have good softness, **whiteness**, sewability, antistatic properties, water absorption, etc. Thus, 500 g acetoxo-terminated siloxane, prepd. from  $\text{Cl}_3\text{SiMe}_2$ , octamethylcyclotetrasiloxane 13.5, and AcOH 13.4 mols and contg. 27 dimethylsiloxo groups/mol., was used with 1,477.3 g polyether (mol. wt. 1,870, prepd. from ethylene oxide and propylene oxide with BuOH as initiator) and 10.35 g 2,3-butanediol in the prepn. of 1,978.5 g polyether-siloxane. An emulsion was prepd. from the polyether-siloxane 100, water 270, and Na dodecanesulfonate (I) 3 g, dild. with 248 g H<sub>2</sub>O, and mixed with 377 g aq. dispersion contg. polyethylene (mol. wt. 30,000) 35, I 2.5, and ethoxylated (10 mol) nonylphenol 1.5%. The dispersion was stable for >1 yr.
- ST polyethylene dispersion finishing textile; polyoxyalkylene siloxane dispersion textile; finishing textile polymer dispersion; antistatic finishing textile; softening textile polymer dispersion; lubricant finishing textile; dispersant polymer finishing textile; **heat** stability finish textile
- IT **Heat** stabilizers  
 (finishing dispersions contg. polyethylene and polyoxyalkylene-siloxanes, for **fabrics** contg. brighteners)
- IT Dispersing agents  
 (for polyethylene and polyoxyalkylene-siloxanes, for **textile** finishes)
- IT Dyeing  
 (of **polyester fabrics**, finishing dispersions for improved)
- IT Antistatic agents  
 Lubricants  
 Softening agents  
 (polyethylene and polyoxyalkylene-siloxanes, for **textiles**, aq. dispersions of)

- IT **Waterproofing**  
(agents, polyethylene and polyoxyalkylene-siloxanes, for **textiles**, aq. dispersions of)
- IT **Textile easy-care finishing**  
(creaseproofing, polyethylene and polyoxyalkylene-siloxanes, for **textiles**, aq. dispersions of)
- IT Siloxanes and Silicones, uses and miscellaneous  
RL: USES (Uses)  
(polyoxyalkylene-, aq. dispersions contg. polyethylene and, for **textile finishing**)
- IT Polyoxyalkylenes, uses and miscellaneous  
RL: USES (Uses)  
(siloxane-, aq. dispersions contg. polyethylene and, for **textile finishing**)
- IT 513-85-9D, 2,3-Butanediol, ethers with polyoxyalkylene-siloxanes  
9038-95-3D, Ethylene oxide-propylene oxide copolymer monobutyl ether,  
ethers with siloxanes 59932-99-9D, ethers with polyoxyalkylenes  
RL: USES (Uses)  
(aq. dispersions contg. polyethylene and, for **textile finishing**)
- IT 9002-88-4, Polyethylene  
RL: USES (Uses)  
(aq. dispersions contg. polyoxyalkylene-siloxanes and, for **textile finishing**)
- IT 2386-53-0, Sodium dodecanesulfonate 9016-45-9, Polyethylene glycol  
mono(nonylphenyl)ether 25155-30-0, Sodium dodecylbenzenesulfonate  
RL: USES (Uses)  
(dispersants, for polyethylene and polyoxyalkylene-siloxanes, in **textile finishes**)

L82 ANSWER 46 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1984:158457 CAPLUS

DN 100:158457

TI Finishing of fibrous materials

PA Matsushita Electric Works, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC B27K005-00; B27K005-02; C14C001-00; D06B019-00; D21C001-10; D21H001-10

CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 46

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58219005	A2	19831220	JP 1982-103555	19820615
PRAI	JP 1982-103555		19820615		

AB In rapid finishing of wood, paper, or fiber, the material is first **heat-treated** by microwave and then treated with a finishing liquor. Thus, wood veneer laminate was heated by microwave for 4 min at 2 kW and 2450 MHz in steam. The above laminate was coated (150 g/m2) with aq. 30% H2O2 and steamed 20 min at 100.degree. to give a uniformly

decolorized veneer laminate.

ST wood veneer rapid decolorization; microwave heating wood decolorization;  
paper rapid finishing; textile rapid finishing

IT Microwave, chemical and physical effects  
(heating by, in rapid finishing of wood, paper or **fabrics**)

IT **Waterproofing**  
(of paper, with siloxanes, by rapid process, microwave heating in)

IT **Bleaching**  
(of wood veneers or **cotton fabrics**, with hydrogen  
peroxide, by rapid process, microwave heating in)

IT Dyeing  
(of wood veneers, with acid dyes, by rapid process, microwave heating  
in)

IT Tung oil  
RL: USES (Uses)  
(polymers with phenol, cresol and formaldehyde, wood veneers  
impregnated by, for laminates)

IT Siloxanes and Silicones, uses and miscellaneous  
RL: USES (Uses)  
(**waterproofing** agents, for paper)

IT Paper  
(**waterproofing** of, with siloxanes, by rapid process,  
microwave heating in)

IT Epoxy resins, uses and miscellaneous  
**Polyesters**, uses and miscellaneous  
RL: USES (Uses)  
(wood veneers impregnated by, for laminates)

IT Veneers  
(wood, rapid decolorization of, with hydrogen peroxide, microwave  
heating in)

IT 9003-35-4  
RL: USES (Uses)  
(paper impregnated with, for laminates)

IT 50-00-0D, polymers with phenol, m-cresol and tung oil 108-39-4D,  
polymers with phenol, tung oil and formaldehyde 108-95-2D, polymers with  
m-cresol, formaldehyde and tung oil 26101-71-3  
RL: USES (Uses)  
(wood veneers impregnated by, for laminates)

L82. ANSWER 47 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1983:541603 CAPLUS  
DN 99:141603  
TI Water-thinned coating compositions  
PA Toyobo Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC C08L075-04; C08L067-00  
ICA C08G018-42; C08G063-68  
CC 42-7 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58027743	A2	19830218	JP 1981-127109	19810812
	JP 03068063	B4	19911025		
	JP 02167328	A2	19900627	JP 1989-190244	19890721
	JP 03029809	B4	19910425		
PRAI	JP 1981-127109		19810812		
AB	<p>Aq. dispersions forming <b>heat- and water-resistant</b>, photocured coatings on plastic films with good adhesion contain polyesters from polycarboxylic acids contg. 0.5-20 mol% sulfonated dicarboxylic acid and 0.01-50 mol% dicarboxylate contg. 0.01-50 mol% photocrosslinkable glycol, and optionally polyisocyanates, water-sol. org. compds. with b.p. 70-200.degree., and water. Thus, a polyester (I) [87263-53-4] (mol. wt. 18,000, softening temp. 154.degree.) was prepd. from di-Me terephthalate 679, di-Me isophthalate 262, di-Me Na 5-sulfoisophthalate 44, ethylene glycol 512, neopentyl glycol 286, and N,N'-bis(2-hydroxyethyl)benzophenonetetracarboxylic diimide 102 parts. A mixt. of 300 parts I and 140 parts BuOCH<sub>2</sub>CH<sub>2</sub>OH was stirred at 150-170.degree. for 3 h and dispersed in 560 parts water to give a dispersion stable for &gt;30 days at -5.degree.. This dispersion was coated on 125-.mu. poly(ethylene terephthalate) to 5-6 .mu., dried at 100.degree. for 20 min, and cured by UV to a coating with good adhesion, pencil hardness 3H, showing no <b>whitening</b> in water at 60.degree. in 24 h.</p>				
ST	photocurable polyester coating waterborne; polyurethane polyester coating photocurable				
IT	Crosslinking (photochem., of <b>polyester</b> waterborne coatings)				
IT	Coating materials (photocurable, water-thinned, <b>polyesters</b> , for plastic films)				
IT	87263-48-7	87263-49-8	87263-50-1	87263-51-2	87263-52-3
	87263-53-4				
	RL: TEM (Technical or engineered material use); USES (Uses) (coatings, waterborne, photocurable)				
L82	ANSWER 48 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN				
AN	1984-125269 [20] WPIX				
DNC	C1984-053073				
TI	<b>Cotton</b> plants protection against wilt - by treating seed with alcohol-water solutions of crown ether(s).				
DC	C02				
IN	AVAZKHODZH, M K H; TASHMUKHAM, A K; ZHUMANIYAZ, A K				
PA	(AUZB-R) AS UZB BIOCHEM INST; (AUZE-R) AS UZB BIOL				
CYC	1				
PI	SU 1034680	A	19830815 (198420)*	7p	
ADT	SU 1034680 A SU 1982-3398119 19820208				
PRAI	SU 1982-3398119 19820208				
IC	A01N043-24				
AB	<p>SU 1034680 A UPAB: 19930925</p> <p>Various <b>fungicides</b> at present in use against <b>cotton</b> wilt caused by Verticillium dahliae are not very effective. The patent proposes the use for this purpose of various crown ethers of the general</p>				

formula (I), where R and R1 are H, C3H7, C5H11, COCH3, COC4H9.

Crown ethers (I) are sparingly sol. in water; they are dissolved in pure ethanol, 0.1-0.2 ml 'Tvin-40' is added and alcohol is removed in vacuo with gentle heat. Pure water is then added to give a 1-5.10 power minus 3M soln. of (I). The detergent 'Tvin-40' does not itself stimulate the resistance of cotton plants to wilt. The infection process is monitored by UV determination of isohemigossipol, isolated by thin layer chromatography. Cotton plant seeds protected with (I) show a 2.2 fold increase in wilt-resistance. A typical example of (I) is diacetyl dibenzo-18-crown-6. The cotton harvest is improved on average by 14%. Bul.30/15.8.83

0/0

FS CPI

FA AB

MC CPI: C06-A03; C12-A02

L82 ANSWER 49 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1982:563706 CAPLUS

DN 97:163706

TI Manufacture of aromatic polyesters

PA Mitsubishi Gas Chemical Co., Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08G063-22

CC 35-5 (Chemistry of Synthetic High Polymers)

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57096017	A2	19820615	JP 1980-171344	19801204
	JP 01018939	B4	19890407		
	DE 3147910	A1	19820729	DE 1981-3147910	19811203
	DE 3147910	C2	19830616		
	US 4362858	A	19821207	US 1981-327038	19811203
PRAI	JP 1980-171344		19801204		

AB A phenolic diol and an arom. dicarboxylic acid chloride were polymd. to d.p. 1-2 in the presence of an inorg. base in a mixt. of water and water-immiscible org. solvent to give HO-terminated oligoesters which were then treated with arom. dicarboxylic acid chloride in the presence of inorg. base in an amt. sufficient to neutralize the free phenolic OH groups to give arom. polyesters with high monomer alternation and excellent water and heat resistance. For example, 450 mL aq. soln. contg. 4.72 g NaOH was prepd. A mixt. of 24.168 g bisphenol A, 0.052 g hydrosulfite, 150 mL CH2Cl2, and 150 mL of the aq. NaOH was treated over 80 min with the remaining aq. NaOH and a soln. of 10.764 g isophthaloyl chloride in 150 mL CH2Cl2 at 10-12.degree. and polymd. for 40 min. The oligomerization mixt. was treated with 150 mL aq. soln. contg. 5.29 g NaOH, 0.5 g p-tert-butylphenol, 0.145 g PhCH2NMe3Cl, and a soln. of 10.764 g terephthaloyl chloride in 60 mL CH2Cl2 at 20-22.degree., stirred for 1 h, treated with 0.5 g p-tert-butylphenol, and stirred for 1 h to give copolymer [39281-59-9] having glass transition

temp. 189.degree., heat-distortion temp. (264 psi load)  
181.degree., and hot **water resistance** (test for  
crazing and **whitening** at 120.degree.) >60 h, compared with 180,  
170, and <20, resp., for a control prep. conventionally in one step.

ST bisphenol alternating arom polyester

IT Polymerization

(alternating, two-step, of bisphenol A and isophthaloyl and  
terephthaloyl chlorides)

IT **Polyesters**, preparation

RL: PREP (Preparation)

(arom., manuf. of alternating, with improved hot **water  
resistance**)

IT 25639-68-3P 39281-59-9P

RL: PREP (Preparation)

(manuf. of alternating, with improved hot **water  
resistance**)

L82 ANSWER 50 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN

AN 1982-73031E [35] WPIX

TI Finishing textile fabric contg. polyester-polyurethane elastic fibre - by  
contacting with a N-fluoro di chloro methylthio sulphamide and  
**heat-treating** to proof against mildew.

DC A23 A25 F06

PA (TOPR-N) TOYO PRODUCTS KK

CYC 1

PI JP 57117673 A 19820722 (198235)\* 7p

JP 60036505 B 19850821 (198537)

ADT JP 57117673 A JP 1981-3130 19810114

PRAI JP 1981-3130 19810114

IC D06M013-38

AB JP 57117673 A UPAB: 19930915

Fabric made of a blend composed of polyester-polyurethane elastic fibre  
and other fibre (especially polyamide-, polyester-, or **cotton**  
fibre) is mildew-proofed by **treating** with a liq. contg. a  
sulphamide of formula (I), and then **heat-treating** at 80 deg.C or  
higher. In (I) A is sulpoamide or N-substd. sulpoamide, esp. a group of  
formula R1R2N-SO2- where R1 and R2 are each H or lower alkyl; and B is  
aromatic group which may have substit. attached to the nucleus.

In an example, nylon/polyester-polyurethane blend tricort fabric was  
immersed in an emulsion containing 0.5 wt.% of N-dimethyl-N'-phenyl-  
(N'-fluorodichloro methylthio)- sulphamide, 6 wt.% of trimethylbenzene and  
3.5 wt.% of surfactant, squeezed to 40% pickup, dried at 120 deg.C for 3  
minutes, and cured at 180 deg.C for 1 minute.

Sufficient mildew-proofness is obtd. without using  
organometallic-compound-based **fungicide**.

FS CPI

FA AB

MC CPI: A05-G02; A08-M02; A12-S05R; F03-C02B

L82 ANSWER 51 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1981:588744 CAPLUS

DN 95:188744

TI Flexible coatings  
 PA Mitsubishi Gas Chemical Co., Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC B05D007-24; B29C027-22  
 CC 42-9 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56089880	A2	19810721	JP 1979-166697	19791221
	JP 63007832	B4	19880218		
	DE 3047286	A1	19810910	DE 1980-3047286	19801216
	DE 3047286	C2	19830825		
	US 4338373	A	19820706	US 1980-217919	19801218
PRAI	JP 1979-166697		19791221		

AB Flexible coatings with good heat and water resistance were formed from a poly(ester imide) as the undercoating and toppings of mixts. or precondensates contg. .gtoreq.2 of (A) polyfunctional cyanate esters, cyanate ester prepolymers, or cyanate ester-amine prepolymers, (B) polyfunctional maleimides, maleimide prepolymers, or maleimide-amine precondensates, (C) epoxy resins, and (D) polyimides. For example, a mixt. of 800 g 2,2-bis(4-cyanatophenyl)propane and 200 g bis(4-maleimidophenyl)methane (I) was heated 120 min at 150.degree., dissolved in DMF, and mixed with 0.5 g Zn octoate and 0.3 triethylenediamine to give a top-coating compn. A Cu wire was coated with a poly(ester imide) soln. in DMF-m-xylene, dried, and baked with the top-coating compn. to give a 0.045-mm-thick coating showing no changes in a pressure cooker (120.degree., 2 atm) for 30 min, while a control without I whitened.

ST copper wire coating; polyester imide coating copper wire; polyimide ester coating copper wire; cyanate polymer coating copper wire; maleimide polymer coating copper wire

IT Electric insulators and Dielectrics  
 (coatings, poly(ester imides) and bis(cyanatophenyl)propane-dimaleimidodiphenylmethane resins, flexible, heat- and water-resistant)

IT Polyimides, uses and miscellaneous  
 RL: USES (Uses)  
 (polyester-, coatings contg., elec. insulating, flexible, heat- and water-resistant)

IT Polyesters, uses and miscellaneous  
 RL: USES (Uses)  
 (polyimide-, coatings contg., elec. insulating, flexible, heat- and water-resistant)

IT 68508-55-4  
 RL: USES (Uses)  
 (coatings contg., elec. insulating, flexible, heat- and water-resistant)

- L82 ANSWER 52 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1981:426521 CAPLUS  
DN 95:26521  
TI On obtaining uniformly good **whiteness** and finish on polyester/cotton blended and 100% polyester **bleached** and printed **fabrics**  
AU Dhingra, Ashok Kumar  
CS Chem. Technol. Div., ATIRA, Ahmedabad, 380 015, India  
SO Journal of the Textile Association (1981), 42(3), 96-9, 106  
CODEN: JTXAA9; ISSN: 0368-4636  
DT Journal  
LA English  
CC 39-9 (Textiles)  
AB **Bleaching** and finishing of polyester and cotton-polyester **fabrics** was discussed with emphasis on singeing and desizing, scouring, **bleaching**, mercerizing, **heat** setting, antistatic finishes, soil-release finishes, **water-** and stain-repellent finishes, antipilling finishes, and process control.  
ST cotton polyester **bleaching** finishing; desizing cotton polyester fiber; singeing cotton polyester fiber; scouring cotton polyester fiber; mercerizing cotton polyester fiber; **heat** setting cotton polyester fiber; fluorescent brightener cotton polyester fiber; antistatic finishing cotton polyester fiber; soilproofing cotton polyester fiber; **waterproofing** cotton polyester fiber; antipilling cotton polyester fiber; process control **bleaching** finishing textile  
IT **Polyester** fibers, uses and miscellaneous  
RL: USES (Uses)  
(**bleaching** and finishing of, in presence of cotton)  
IT Antistatic agents  
(for polyester and cotton-polyester textiles)  
IT Process control and dynamics  
(in **bleaching** and finishing of cotton-polyester and polyester textiles)  
IT Mercerization  
(of cotton-polyester textiles)  
IT **Bleaching**  
Soilproofing  
Waterproofing  
(of polyester and cotton-polyester textiles)  
IT Sizes  
(removal of, from polyester and cotton-polyester textiles)  
IT **Textiles**  
(cotton-polyester, finishing of)
- L82 ANSWER 53 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1981:104756 CAPLUS  
DN 94:104756  
TI Preparation and properties of rayon **fabrics** modified with vinylidene fluoride



AU Yusupaliev, R. M.; Idriskhodzhaeva, N. M.  
CS Tashkent. Politekh. Inst., Tashkent, USSR  
SO Uzbekskii Khimicheskii Zhurnal (1980), (5), 23-6  
CODEN: UZKZAC; ISSN: 0042-1707  
DT Journal  
LA Russian  
CC 39-4 (Textiles)  
AB Grafting of rayon with vinylidene fluoride(I) increases the  
**whiteness**, thermal stability, and **water**  
**repellency** of the **fabrics**. The wetting angle of rayon  
**fabrics** modified with 6% I increased to 105-10.degree. depending  
of the preliminary treatment of the **fabrics**. The **water**  
**repellency** of modified rayon was due to the presence of I which  
had a higher hydrophobicity than the original rayon. Mech. properties of  
rayon did not decrease significantly on grafting with I.  
ST rayon grafting vinylidene fluoride; vinylidene fluoride  
**waterproofing** rayon; **heat** resistance rayon grafting  
IT **Waterproofing**  
(of rayon, by graft copolymn. with vinylidene fluoride)  
IT **Heat-resistant** materials  
(vinylidene fluoride-grafted rayon, prepn. and properties of)  
IT Rayon, properties  
RL: PRP (Properties)  
(vinylidene fluoride-grafted, thermal stability and **water**  
**resistance** of)  
IT 75-38-7D, polymer with rayon  
RL: USES (Uses)  
(graft, thermal stability and **water resistance** of)  
  
L82 ANSWER 54 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1978-09496A [05] WPIX  
TI Method for ripple **finish** of **cotton** cloth - which  
causes no shear between printed patterns and ripples.  
DC A87 F06  
PA (MUTO-N) MUTOH KK  
CYC 1  
PI JP 52152597 A 19771219 (197805)\*  
PRAI JP 1976-69518 19760614  
IC D06M013-00; D06M015-00; D06P005-00  
AB JP 52152597 A UPAB: 19930901

**Cotton** fabrics are printed by screen or roller printing with a  
printing paste which contains cold type reactive dye or azo dye and  
**water repellening** agent for ripple finish. The fabrics  
printed with the above dye may be printed with a **water**  
**repelling** agent by the use of another stencil which matches the  
printed pattern.

After drying, the printed fabrics are treated with steam **heat**  
at 98-102 degrees C for <20 mins. - pref. 20 secs. to 2 mins. for reactive  
dye and 3-10 mins. for azo dye - or with dry **heat** at 120-180  
degrees C for <5 mins., pref. 20 secs. to 3 mins.

The fabrics are then treated with soln. of caustic soda at a concn.  
of 20-38, pref. 28-35 degrees Be and at 0-30, pref. 10-20 degrees C. The

fabrics are left in the air for <20, pref. 3-8 mins., neutralised and dried.

The cotton fabrics are calico, poplin, etc. of coarse texture and they are subjected to pretreatment such as singeing, desizing, scouring, **bleaching**, etc. The **water repellening** agent is used solely or in combination with resin.

FS CPI  
FA AB  
MC CPI: A03-A05A; A11-C04A; A12-S05Q; F03-G

L82 ANSWER 55 OF 68 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1975-31225W [19] WPIX  
TI Polyester (-cotton)blend textile **finishing** - using methylhydrogensiloxane-dimethylsiloxane copolymer dispersions in presence of alkali catalyst.

DC A23 A26 A87 F06  
PA (TOYM) TOYOBO KK  
CYC 1

PI JP 49027699 A 19740312 (197519)\*  
JP 51036839 B 19761012 (197645)  
PRAI JP 1972-71756 19720717  
IC D06M015-66  
AB JP 49027699 A UPAB: 19930831

A polyester or polyester-cellulose blend textile is treated with a dispersion of methylhydrogensiloxane copolymer (I) with or without poly(methylhydrogensiloxane) in the presence of an alkali catalyst and **heated**. In an example a 80:20 polyester-cotton blend textile was scoured, **bleached**, mercerized, immersed in a mixt. of 20% solids 7:93 (molar) (I) of mole wt. 25,000 5, NaHCO<sub>3</sub> 3, and water 92 parts, squeezed to 70% pickup, dried, and **heated** 3 min. at 150 degrees. The textile had **water repellency** (JIS L 1004) 50, good resilience and softness, wrinkle recovery (Monsanto test) 250, and wash-wear properties rating 4, compared with 90, fair resilience and softness, 235, and 3, 5, resp., for a similar textile treated with a similar compsn. contg. Sn octanoate in place of NaHCO<sub>3</sub>.

FS CPI  
FA AB  
MC CPI: A06-A00E1; A12-G02; F03-C02A; F03-C04; F03-C05

L82 ANSWER 56 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1973:527062 CAPLUS  
DN 79:127062  
TI Polyester fiber reinforced acrylonitrile-butadiene-styrene copolymer resins

IN Imai, Kazuo; Hiroyasu, Satoru  
PA Kuraray Co., Ltd.  
SO Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
NCL 25(1)C318.11; 25(1)A212.1  
CC 36-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 48055947	A2	19730806	JP 1971-91771	19711115
PRAI	JP 1971-91771		19711115		
AB	The ABS resin compn. is reinforced with <10-denier, <50-mm polyester fibers with wet-heat shrinkage <15% with or without glass fibers, or a small amt. of other org. fibers. The compn. has good impact strength and resistance to whitening in water Thus, a compn. of 70 parts ABS resin (DP-35) and 30 parts 5.3-denier, 6-mm polyester fiber was kneaded 15 min and pressed 15 min at 190.deg. and 50 kg/cm2 to give test sheets which did not whiten after 5 hr in 80.deg. water and absorbed 0.66% water after 2 hr in 100.deg. water, compared with 1.60% for a similar compn. contg. 8.7-denier nylon fibers. The latter whitened badly after 5 hr in 80.deg. water.				
ST	fiber reinforcement ABS resin; polyester fiber reinforcement; water resistance ABS resin				
IT	Polyester fibers				
RL:	USES (Uses) (ABS resin reinforced with, impact- and aq. whitening -resistance of)				
IT	9003-56-9				
RL:	USES (Uses) (polyester fiber-reinforced, aq. whitening resistance of impact-resistant)				

L82 ANSWER 57 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1974:479109 CAPLUS  
 DN 81:79109  
 TI Production of aqueous dispersion of polyurethane  
 IN Shiroda, Kanji; Masuda, Takeshi; Nagaki, Ryuzo; Ito, Takayuki; Yonemoto, Kunio  
 PA Dainippon Ink and Chemicals, Inc.  
 SO Jpn. Tokkyo Koho, 10 pp.  
 CODEN: JAXXAD  
 DT Patent  
 LA Japanese  
 IC C08G; C09D; D06M; D06N  
 CC 38-4 (Elastomers, Including Natural Rubber)  
 Section cross-reference(s): 39, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 48041718	B4	19731207	JP 1969-89287	19691110
PRAI	JP 1969-89287		19691110		
AB	Polymn. of mixts. contg. 0.7 .geq. x .geq. 0.2 equiv. trimethylolpropane-propylene oxide adduct (I) or glycerol-propylene oxide adduct (II) (mol. wt. of I or II = 1500-5000), 0.5 .geq. y .geq. 0.1 equiv. propylene glycol-propylene oxide adduct (III) (mol. wt. 500-3000), 0.6 .geq. z .geq. 0.1 equiv. ethylene glycol (IV), hexamethylene glycol, or tetramethylene glycol (x + y + z = 1), and 2 equiv. toluene diisocyanate (V) at 50-90.deg. and mixing the resulting polymer with 3-15 wt. %				

poly(oxyethylene-oxypropylene) glycol (V,I) [9003-11-6] [.sim.80 wt.% poly(oxyethylene); mol. wt. of poly(oxypropylene) = 3250] and piperazine gave polyurethane films with improved luster, elasticity, durability, and **resistance to water**, solvents, chems., weather, and **heat**, and which were useful for coatings and leather substitutes and as adhesives and binders for nonwoven **fabrics**. Thus, a compn. contg. I (mol. wt. 2502) 3, III (mol. wt. 1982) 5, IV 2, and V 20 equiv was mixed 3 hr at 60-70.deg. to give an NCO-terminated copolymer (VII). A mixt. contg. VII 100, toluene 40, VI 6, and H2O 75 parts was mixed with cooling. Piperazine (98 equiv. %) (based on NCO groups of VII) was added and the compn. was mixed 30 min. The mixt. was cast to give 0.5-mm film after curing 2 days at 25.deg., and the resulting film was heated 10 min at 140.deg. to give a film, 100% modulus 12 kg/cm2, tensile strength 157 kg/cm2, elongation 480%, swelling (24 hr in C2HCl3 at 25.deg.) 186%, and rebound elasticity 82%. The phys. properties of a **nylon** taffeta coated with the mixt. were unchanged on **bleaching** at a high or low temp. after curing at 140.deg..

ST elasticity polyurethane film; urethane rubber compn; leather substitute polyurethane; stability polyurethane soln

IT Polyamide fibers

RL: USES (Uses)

(**fabrics**, urethane rubber coatings for)

IT Rubber, urethane, preparation

(glycol-poly(oxypropylene)diol-poly(oxypropylene)triol, compns. for)

IT Coating materials

(urethane rubber, for polyamide **fabrics**)

IT Leather substitutes

(urethane rubbers for)

IT 107-21-1, uses and miscellaneous 110-63-4, uses and miscellaneous

629-11-8 9003-11-6 25322-69-4 25723-16-4 25791-96-2 26471-62-5

RL: USES (Uses)

(urethane rubber manuf. from)

L82 ANSWER 58 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1972:115106 CAPLUS

DN 76:115106

TI **Water-resistant** glossy papers

IN Yamamoto, Isao; Tanaka, Michio; Fujihara, Manabu

PA Sansen Seishi Co., Ltd.; Arakawa Forest Chemical Industries, Ltd.

SO Jpn. Tokkyo Koho, 5 pp.

CODEN: JAXXAD

DT Patent

LA Japanese

IC D21H; C08G

CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 46012083	B4	19710327	JP	19681106
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PI AB Papers coated with a 100:5-20 polyacrylamide (I) [9003-05-8]-epoxide-modified polyamide optionally contg. a urea or melamine resin had better **water resistance** than those coated with I alone. The

coated papers had higher gloss, surface strength, and folding endurance than com. clay-coated papers and good printability and abrasion resistance. For example, a mixt. of 160 parts triethylenetetramine and 146 parts adipic acid was heated at 190.deg. for 4 hr and treated with water to give a 50% polyamide soln. A mixt. of the polyamide soln. 125, water 450, and epichlorohydrin (II) [106-89-8] 50 parts was heated at 70.deg. for 3 hr, treated with HCl to pH 4.5, and dild. with water to give a 10% soln. of a modified polyamide. A **bleached** kraft paper (82.4 g/m2) was coated (1 g/m2) with a 5% soln. of 100:12 (solid ratio) I-modified polyamide, dried on a ferrotype plate at 110.deg. for 5 min, and **heat-treated** at 110.deg. for 3 min.

ST **water resistance** paper; polyacrylamide coating paper; polyamide modified coating paper; epichlorohydrin modified polyamide; aminoplast coating paper; gloss paper

IT Coating materials  
(acrylamide polymers contg. modified **polyamides**, on paper, **water-resistant**)

IT Paper  
(coatings on, of acrylamide polymers contg. modified **polyamides**, **water-resistant**)

IT 9003-05-8  
RL: USES (Uses)  
(coatings, contg. modified polyamide, on paper)

IT 106-89-8, uses and miscellaneous  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for **polyamides**)

IT 25085-20-5 25085-21-6  
RL: USES (Uses)  
(epichlorohydrin-crosslinked, coatings contg. acrylamide polymers)

L82 ANSWER 59 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1967:76838 CAPLUS

DN 66:76838

TI Perfluoro ester-aziridine oil-repellent finish for cotton  
AU Moreau, Jerry P.; Ellizey, Samuel E., Jr.; Drake, George L., Jr.

CS Southern Regional Res. Lab., New Orleans, LA, USA

SO American Dyestuff Reporter (1967), 56(4), 117-121

CODEN: ADREAI; ISSN: 0002-8266

DT Journal

LA English

CC 39 (Textiles)

AB The reaction of ethylenimine (I) and Et perfluorooctoate (II) was studied by using ir spectroscopy. The ester consumption was nearly complete at a I/II mole ratio of 3:1. Solns. contg. I and II in this ratio in 2-ethoxyethanol as solvent, were used to treat cotton **fabrics**. Samples dried at 80.degree. without **heat** cure had good hand and high oil repellency and remained white, while those cured at .gtoreq.120.degree. were yellowed. **Water repellency** was .ltoreq.50% for all treatments. The durability of the finish fell off after 10 launderings or 5 hrs. extn. with perchloroethylene, for add-on levels of <5%. The treating solns. were reused after 12-29 days aging at room temp. **Fabrics** treated with these solns. were not yellowed,

and oil repellency and durability were nearly as good as for fresh solns. The reflectance of treated samples was affected only slightly by exposure to natural light. Discoloration from Cl bleaching and (or) scorching was removable with NaBH<sub>4</sub> or NaBO<sub>3</sub>. Light-microscope examn. of Hardy sections of stained, treated fibers indicated that polymer deposition occurred randomly, mainly in the fiber lumens and immature fiber walls. The treatment did not increase the resistance to microbiol. degradation. Et perfluorobutyrate was used in expts. as above, but gave much lower oil repellency. The phys. properties of fabric padded to 85% pickup in a 3% II-0.9% I soln., dried at 180.degree.F. for 5 min., and after washed 30 min. were detd. (treatment, initial 3M oil repellency, oil repellency after 5 launderings, oil repellency after 2.5 hrs. extn., g. Elmendorf tear strength (wet), lb. breaking strength (wet), % elongation (wet), % moisture regain, % moisture content, cycles flex abrasion (wet), ft.3/min./ft.2 air permeability, and in.-lb. times. 10-4 bending moment (wet) given: none, 0, -, -, 1033, 46.1, 9.4, 7.7, 7.1, 1272, 93, 3.2; 3.3% add-on, 120, 110, 110, 973, 49.5, 9.8, 7.9, 7.3, 1158, 73, 4.8.

ST OIL REPELLENT COTTON FINISH; COTTON FINISH OIL REPELLENT; PERFLUORO ESTER-AZIRIDINE COTTON; AZIRIDINE PERFLUORO ESTER COTTON; ETHYLENIMINE PERFLUOROCTOATE REACTION; PERFLUOROCTOATE ETHYLENIMINE REACTION

IT Oils

RL: USES (Uses)

(-proofing of cotton textiles, with ethylenimine and ethyl perfluorooctanoate)

IT Textiles

(oil-proofing of cotton, with ethylenimine and ethyl perfluorooctanoate)

IT 151-56-4

RL: USES (Uses)

(oil-proofing of textiles with ethyl perfluorooctanoate and)

IT 3108-24-5

RL: USES (Uses)

(oil-proofing of textiles with ethylenimine and)

L82 ANSWER 60 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1965:472758 CAPLUS

DN 63:72758

OREF 63:13485a-c

TI Treatment of water-resistant acetalized poly(vinyl alcohol) fibers with alkali metal borohydrides to improve their thermal stability

IN Shiraishi, Makoto

PA Kurashiki Rayon Co. Ltd.; Air Reduction Co., Inc.

SO 3 pp.

DT Patent

LA Unavailable

NCL 117047000

CC 47 (Textiles)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 3198651 19650803 US  
PRAI JP 19590423

AB **Water-resistant** acetalized poly(vinyl alc.) fibers (vinylon) are stabilized so that they will not yellow at elevated temps, by treatment with an alkali metal borohydride. Thus, 2 g. vinylon fibers were soaked in 100 cc. of a 0.1% aq. soln. of NaBH<sub>4</sub> at room temp. for 5 hrs., removed and immersed in 100 cc. of 5% AcOH soln., H<sub>2</sub>O-washed, and dried. The treated vinylon stayed white when heated to 200.degree. for 5 min., while a similar untreated fabric became slightly yellow. KBH<sub>4</sub> can also be used. The treatment is also effective after **bleaching** of the fibers.

IT Vinylon  
(discoloration (yellow) at high temps., prevention by KBH<sub>4</sub> or NaBH<sub>4</sub>)  
IT Fibers, synthetic  
(from vinyl alc. polymers, acetalized **water resistant**, **heat** stabilization of by KBH<sub>4</sub> or NaBH<sub>4</sub>)  
IT Discoloration  
(vinylon yellow, at high temps., prevention by KBH<sub>4</sub> or NaBH<sub>4</sub>)  
IT 9002-89-5, Vinyl alcohol polymers  
(fibers from, acetalized **water-resistant**, increasing **heat** stability by KBH<sub>4</sub> or NaBH<sub>4</sub>)  
IT 16940-66-2, Sodium tetrahydroborate  
(vinylon yellow discoloration at high temps. prevention by)  
IT 13762-51-1, Potassium tetrahydroborate  
(vinylon yellow high-temp. discoloration prevention by)

L82 ANSWER 61 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1965:15723 CAPLUS

DN 62:15723

OREF 62:2874c-e

TI **Waterproof**, antistatic textile finishes

IN Tesoro, Giuliana C.; Valko, Emery I.; Freiman, Aaron

PA Onyx Oil & Chemical Co.

SO 4 pp.

DT Patent

LA Unavailable

IC D06M

CC 47 (Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1178394		19640924	DE	
PRAI	US		19570617		

AB Textile materials, esp. hydrophobic fibers, are treated with substituted tertiary amines to make them antistatic and resistant to laundering and dry cleaning. To achieve these properties, polytertiary amines are used, prepd. by reaction of an aliphatic primary monoamine with an alkylene or aralkylene glycol diester and (or) other diesters, e.g. of polyethylene glycol, in the presence of an acid acceptor. Finally, the impregnated textiles are dried and heated to make them insol. by cross-linking with tertiary or polytertiary amines. This treatment also makes the fibers absorb and fix acid dyes. For example, an antistatic finish was prepd.

from MeNH<sub>2</sub> 17.85, polyethylene glycol dichloride (mol. wt. 600) 366, ethylene glycol 385, and anhyd. Na<sub>2</sub>CO<sub>3</sub> 121 parts in a glass-coated autoclave by heating for 3 1/2 hrs. at 128.degree. and 2.4-3.2 kg./cm.<sup>2</sup> internal pressure. After cooling at 80.degree., 800 parts H<sub>2</sub>O were added to sep. the salts in the aq. layer by standing for 1 1/2 hr., then 453 parts salt contg. H<sub>2</sub>O were gradually removed and the same amt. of H<sub>2</sub>O added to make up a 20% active soln. of the polytertiary amine (I). Undyed, **bleached** polyester taffeta was impregnated with I 40 and polyethylene glycol diiodide 2.2 in H<sub>2</sub>O 100 parts on a 3-roll dyeing machine, dried for 2 min. at 90.degree., and **heat-treated** for 3 min. at 150.degree.. The antistatic effect resists > 70 launderings.

- IT Bonds  
(cross-linkage formation, in **textiles** with polytertiary amines)
- IT **Textiles**  
(dye-affinity improvement, elec-charge prevention and **waterproofing** of, with polytertiary amines from diesters)
- IT Fibers, synthetic  
(dyeability improvement, elec.-charge prevention and **waterproofing** of, with polytertiary amines from diesters)
- IT **Waterproofing**  
(of **textiles**, with polytertiary amines from diesters)
- IT Esters  
(poly-, dye-affinity improvement and elec.-charge prevention on fibers from, by polytertiary amines)
- IT Electric charge  
(prevention on **textiles**, by polytertiary amines from diesters)
- IT Dyeing  
(properties, of **textiles**, improvement by polytertiary amines from diesters)
- IT Amines  
(**textile** finishing with polytertiary, from diesters in dye-affinity increase, elec.-charge prevention and **waterproofing**)

L82 ANSWER 62 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1963:455809 CAPLUS

DN 59:55809

OREF 59:10296c-e

TI Stabilized polyamides

PA Societa de la Viscose Suisse.

SO 16 pp.

DT Patent

LA Unavailable

CC 47 (Textiles)

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	BE 625217		19630314	BE	
	FR 1347912			FR	
	GB 978595			GB	
	US 3260697		1966	US	



- PRAI GB 19611124
- AB Improved stabilization of polyamides to **heat**, light, and repeated washings is described. For this purpose, a combination of a thermally stable quinone, a salt or ester of an org. O acid of P, a Min salt, and an org. dibasic or monobasic acid or anhydride is used. For example, fibers are drawn from a polyamide compn. contg. 5 kg. poty(hexamethyleneadipamide), 47.3 g. TiO<sub>2</sub>, 4.3 g. optical **bleach** (Uvitex MP), and 2.15 g. di-tert-butyl-2,5-hydroquinone, 4.3 g. NaH<sub>2</sub>PO<sub>2</sub>, 0.645 g. Mn lactate, and 23.65 g. Bz<sub>2</sub>O as stabilizer, and 30 p.p.m. Mn. The relative viscosity is 31.5, the tensile strength 5.9 g./denier, and the ultimate tensile strength 27.6%. After heating at 225.degree. or after exposure to ultraviolet light, no discoloration is found. A control sample contg. 1.1% TiO<sub>2</sub> and 0.17% HOAc as stabilizers has a relative viscosity of 32.2, a tensile strength of 5 g./denier, and an elongation at break of 27.1%. These fibers slowly changed from pure white to yellow when heated or irradiated. The absence of any one of the 4 stabilizer components renders the resulting combination less effective.
- IT Phosphorus acids  
(esters or salts of O-contg., **nylon** stabilization against **heat**, light and washing by quinones and)
- IT Anhydrides  
(**nylon** stabilization against **heat**, light and washing by quinones and)
- IT Esters  
Salts  
(of phosphorus O-contg. acids, **nylon** stabilization by quinones and)
- IT **Nylon**  
(stabilization of, against **heat**, light and washing with acids, Mn salts, P acid derivs. and quinones or phenols)
- IT p-Cresol, 2,2'-methylenebis[6-tert-butyl-  
(in **nylon** stabilization against **heat**, light and washing)
- IT Sulfide, amidino carboxy, octadecyl ester, hydrochloride  
(in water proofing **textiles**)
- IT Pseudourea, 2-thio-, anhydrosulfide with O-octadecyl thiocarbonate, hydrochloride  
(in **waterproofing textiles**)
- IT Acids, catalysts in polymerization  
Manganese salts  
(**nylon** stabilization against **heat**, light and washing by quinones and)
- IT Manganese lactate, mixt. with di-tert-butyl-2,5-hydroquinone  
(**nylon** stabilization by)
- IT 85-60-9, m-Cresol, 4,4'-butylidenebis[6-tert-butyl- 88-24-4, Phenol, 2,2'-methylenebis[6-tert-butyl-4-ethyl- 88-58-4, Hydroquinone, 2,5-di-tert-butyl-  
(in **nylon** stabilization against **heat**, light and washing)
- IT 99997-17-8, Carbonic acid, thio-, O-octadecyl ester, anhydrosulfide with 2-thiopseudourea, hydrochloride  
(in **waterproofing textiles**)

IT 7681-53-0, Sodium hypophosphite  
(nylon stabilization by di-tert-butyl-2,5-hydroquinone and)

L82 ANSWER 63 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1956:14468 CAPLUS

DN 50:14468

OREF 50:2985a-d

TI Reaction of cellulose fibers with .beta.-propiolactone

IN Daul, Geo. C.; Reid, John D.; Reinhardt, Robert M.

PA United States of America, as represented by the Secy. of Agr.

DT Patent

LA Unavailable

CC 25 (Dyes and Textiles Chemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2721784		19551025	US	
AB	Cellulose fibers react with .beta.-propiolactone (I) vapor, or I dissolved in a water-immiscible solvent, e.g. xylene, with or without acid or basic catalysts, to increase thickness, impart resistance to dyes, heat, and wrinkling, and decrease affinity for water and polar compds. with no decrease in tensile strength. Esterification is the preferred reaction, which predominates when treatment is made with I in soln., e.g. xylene. Etherification predominates when I vapor is used. In general, etherification is favored by use of acid or no catalysts, while esterification is favored by basic catalysts. The use of yarn, thread, or fabric of bleached, mercerized cotton is preferred. For example, 3 skeins of 12/5 cotton thread were soaked in 2% solns. of monoammonium phosphate, diammonium phosphate, and oxalic acid, resp., centrifuged to about 100% wet pick-up, dried at 60.degree., and refluxed in 500 ml. xylene contg. 60 g. I for 15 min. The treated samples were extd. with acetone. Wt. gains after extn. were 22.5, 23.9, and 19.1%, resp.; and carboxyethyl contents were 11.7, 12.5, and 9.7%, resp. With NaOH as catalyst and 10-min. refluxing, the wt. gain was 31.5% and the carboxyethyl content 13.9%.				
IT	<b>Waterproofing</b> (of cellulose fibers with .beta.-propiolactone)				
IT	Dyeing (properties, of cellulose, modification by .beta.-propiolactone)				
IT	Fibers (reaction of cellulose, with .beta.-propiolactone)				
IT	Threads Yarns (reaction of mercerized cotton, with .beta.-propiolactone)				
IT	Creaseproofing (with .beta.-propiolactone)				
IT	<b>Textiles</b> (.beta.-propiolactone-reacted mercerized cotton)				
IT	57-57-8, Hydracrylic acid, .beta.-lactone (cellulose esterification by soln. and etherification by vapor of)				
IT	9004-34-6, Cellulose (reactions of, with .beta.-propiolactone in fiber modification)				

L82 ANSWER 64 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1956:6499 CAPLUS

DN 50:6499

OREF 50:1322g-i,1323a

TI The influence of textile chemical treatments on physiological properties of textiles

AU Mecheels, Otto

SO Melliand Textilberichte (1923-1969) (1955), 36, 722-8

CODEN: METXAK; ISSN: 0025-8989

DT Journal

LA Unavailable

CC 25 (Dyes and Textiles Chemistry)

AB Treatments of textiles, similar to those used in mills and laundries, changes the bactericidal properties and the retention, absorption, and permeability of the **fabrics** to body **heat**, water, and sweat. Wool **cloth** was chromated or chlorinated at different pH values and concns. and sterilized in steam. The wool was then wetted and cultures of skin bacteria, especially *Micrococcus pyogenes* var. *aureus*, grown on it for 2 weeks and the damage noted. Chromation after but not before the chlorination reduced damage to the wool. The chromation was effective if the solns. used had 0.1% chromate or more. Chromation or chlorination at low pH caused more damage than treatment at pH 5 or 7. Repeated **bleaching** or washing of linen at 100.degree. reduced the humidity transfer across the **fabric** and increased the water-absorption of the fibers, while washing at 85.degree. had little effect. Halflinen and cotton were more resistant to damage caused by washing or **bleaching** at 100.degree.. Impregnation of poplin for **water-repellency** improved the **heat** retention of the body. Synthetic polyamide fibers (Perlon) chromated up to pH 7.5 absorbed Cr, the amt. increasing with decreasing pH. The chromated Perlon showed less swelling than the untreated material.

IT Linen

(chem.-treatment effect on physiol. properties of)

IT **Textiles**

(chemical-treatment effect on physiol. properties of)

IT Absorption

(of chromium by Perlon, pH and)

IT Permeability

(of **textiles**, effect of chem. treatments on)

IT Chlorination

(of **textiles**, effect on physiol. properties)

IT **Nylon**

(chromation and swelling of chromated Perlon)

IT 7440-47-3, Chromium

(compds., **textile** treatment with, effect on physiol. effects)

L82 ANSWER 65 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1926:8975 CAPLUS

DN 20:8975

OREF 20:1121c-i,1122a-c

TI American Society for Testing Materials tentative standards submitted or

revised at the 1925 annual meeting

AU Anon.

SO Proceedings, American Society for Testing and Materials (1925), 25(I), 509-962

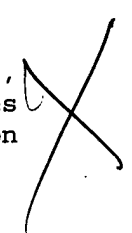
CODEN: ASTEAV; ISSN: 0097-4153

DT Journal

LA Unavailable

CC 13 (General Industrial Chemistry)

AB Tentative specifications are given for C-steel car and tender axles, structural Si steel, C-steel castings for valves, flanges and fittings for high-temperature service, alloy-steel bolting material for high-temp. service, W powder, spiegeleisen, ferro-Mn, ferro-Si, ferro-Cr, ferro-V, hollow staybolt Fe, Al base alloy sand castings, bronze trolley wire, Muntz metal condenser tube plates, Al ingots for remelting, non-ferrous insect screen cloth; for quicklime for use in the manuf. of sulfite pulp, quicklime for use in water treatment, hydrated lime for use in water treatment; for preservative coatings including raw tung oil, dry bleached shellac, Fe oxide and Fe hydroxide, lithopone, lampblack, boneblack, chrome yellow, pure chrome green, reduced chrome green; for high-C tar cement for use cold in repair work, high-C tar cement; for water-proofing materials including acid-resisting asphalt mastic, smooth-surfaced asphalt roll-roofing, slate-surfaced asphalt roll-roofing and slate-surfaced asphalt shingles, asphalt-satd. roofing felt for use in **waterproofing** and in constructing built-up roofs, coal-tar satd. roofing felt for use in **waterproofing** and in constructing built-up roofs; for textile materials including textile testing machines, tolerances and test methods for cotton yarns, single and plied, tolerances and test methods for cotton sewing threads, tolerances for numbered cotton duck, tolerances and test methods for knit goods; for sieves for testing purposes. Tentative methods are given for sampling ferro-alloys; chem. analysis of ferro-alloys, chem. analysis of Al and light Al alloys; chem. analysis of limestone, quicklime and hydrated lime, securing specimens of hardened concrete from the structure; testing shellac varnish, routine analysis of white linseed oil paints; test for distn. of gasoline, naphtha, kerosene and similar petroleum products, for distn. of natural gas gasoline, for penetration of greases, for viscosity of petroleum products and lubricants, for color of petrolatum by means of the Union Colorimeter, for burning quality of long-time burning oil for railway use, for neutralization no. of petroleum products and lubricants, for cloud and pour points of petroleum products, testing gas oils (gravity, distn., S, C residue, pour point, viscosity, water); mech. analysis of subgrade soils, test for the detn. of moisture equiv. of subgrade soils in the field, test for consistency of port.-cement concrete, float test for bituminous material; test for absorption of slate, flexure testing of slate (detn. of modulus of rupture and modulus of elasticity); testing felted and woven **fabrics** satd. with bituminous substances for use in **waterproofing** and roofing, testing bituminous mastics, grouts and like mixts.; testing smooth-surfaced asphalt roll-roofing, slate-surfaced asphalt roll-roofing and slate-surfaced asphalt shingles; testing of insulating varnishes, of elec. insulating materials for voltage effects at radio frequencies, of cable splicing and pothead compds., of untreated insulating paper, of laminated sheet insulating materials, of grease wool



and allied fibers for scoured content; tension testing of metallic materials, compression testing of metallic materials, Brinell hardness testing of metallic materials. Tentative recommended practice is described for carburizing and heat treatment of carburized objects; thermal analysis of steel. Tentative definitions are given of terms relating to the gypsum industry, the term sand; terms relating to coal; terms relating to methods of testing, terms relating to sp. gr., the term screen (sieve). Under the heading "Tentative revisions of A. S. T. M. standards" standards specifications are given for C-steel and alloy-steel forgings, quenched-and-tempered C-steel axles, shafts and other forgings for locomotives and cars, C-steel forgings for locomotives, quenched-and-tempered alloy-steel axles, shafts and other forgings for locomotives and cars, C-steel car and tender axles, welded and seamless steel pipe, lap-welded and seamless steel and lap-welded Fe boiler tubes, welded wrought-Fe pipe, staybolt, engine-bolt and extra-refined wrought Fe bars, malleable castings, Lake Cu wire bars, cakes, slabs, billets, ingots and ingot bars, electrolytic Cu wire bars, cakes, slabs, billets, ingots and ingot bars, light Al casting alloys, high-strength bronze trolley wire, round and grooved, 40 and 65% cond., seamless admiralty condenser tubes and ferrule stock, high sheet brass, naval brass rods for structural purposes; specifications and tests for port. cement, cement-concrete sewer pipe, fire tests of materials and construction, paving brick, hydrated lime for structural purposes; turpentine; broken slag for waterbound base and wearing course; shovel-run or crusher-run broken slag for waterbound base. Recommended practice is described for heat treatment of case-hardened C-steel objects. Standard methods are given for testing gypsum and gypsum products; test for distn. of bituminous materials suitable for road treatment, lab. sampling and analysis of coke, lab. sampling and analysis of coal, sampling and analysis of creosote oil, testing molded insulating materials. Standard definitions are given of terms relating to paint specifications.

L82 ANSWER 66 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1912:6071 CAPLUS

DN 6:6071

OREF 6:934e-i,935a

TI The Sizing of Cotton Goods in Relation to Subsequent processes

AU Whowell, F.

SO Journal of the Society of Chemical Industry, London (1912), 30, 1007  
CODEN: JSCIAN; ISSN: 0368-4075

DT Journal

LA Unavailable

CC 25 (Dyes and Textile Chemistry)

AB Certian of the ingredients employeed for sizing warp yarns exert very injurious effects upon the cloth in some of the subsequent processes, e. g., singeing, **bleaching**, dyeing and printing. A moist atm. and a certain amt. of moisture in the yarn are practically essential to ensure good results in the weaving. To prevent mildew in sized warps the sizer in corporates a small amt. of  $ZnCl_2$ ,  $MgCl_2$  or  $CaCl_2$  with the size, which acts at the same time as an antiseptic and as a deliquescent. All these chlorides tend to dissociate at high. temps., and **cloths** containing them are liable to become tendered after passing

through the singeing process. The heat of the singeing machine liberates HCl which destroys the fibers of the cloth. The irregularly distributed damaged parts betray themselves in the form of holes with clean cut edges, distinct from the frayed edges of mechanically damaged parts. Another objectionable substance often used in sizing is paraffin wax, the object being to lubricate the sized threads for the weaving process. Tallow is the proper substance to employ for this purpose, but paraffin is used either because it is cheaper or in the form of adulterated tallow. Paraffin wax and similar unsaponifiable substances are not emulsified in the b. processes to which the goods are subjected preparatory to bleaching or dyeing. The wax is simply loosened, floats to the top of the kier and settles on the goods in the form of patches producing gray water-resistant stains which cannot be bleached or dyed. Sometimes the wax remains evenly distributed over the cloth without forming patches, in which case the fibers remain absolutely resistant to the calendaring operation and the cloth finished up quite limp. Mineral oil stains derived from the lubricating oil of the loom or other machinery are likewise objectionable, and it has been clearly demonstrated that mineral oil stains resist all known processes of bleaching, but it would appear that a mixture of vegetable and mineral oils is not so harmful. In the discussion, P. Bean pointed out that the use of deliquescent chlorides is not confined to the object of facilitating the weaving operations.  $MgCl_2$  and  $CaCl_2$  are used illegitimately to increase the wt.; these chlorides attract excess of moisture, enabling the cloth to carry more "filling." "Yorkshire grease" has been mentioned as a substitute for tallow, but this is not always safe.

L82 ANSWER 67 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1912:6070 CAPLUS

DN 6:6070

OREF 6:934e-i,935a

TI The Sizing of Cotton Goods in Relation to Subsequent processes

AU Whowell, F.

SO Textil Inst. J. (1912), 2, 43-53

DT Journal

LA Unavailable

CC 25 (Dyes and Textile Chemistry)

AB Certain of the ingredients employed for sizing warp yarns exert very injurious effects upon the cloth in some of the subsequent processes, e. g., singeing, bleaching, dyeing and printing. A moist atm. and a certain amt. of moisture in the yarn are practically essential to ensure good results in the weaving. To prevent mildew in sized warps the sizer incorporates a small amt. of  $ZnCl_2$ ,  $MgCl_2$  or  $CaCl_2$  with the size, which acts at the same time as an antiseptic and as a deliquescent. All these chlorides tend to dissociate at high temps., and cloths containing them are liable to become tendered after passing through the singeing process. The heat of the singeing machine liberates HCl which destroys the fibers of the cloth. The irregularly distributed damaged parts betray themselves in the form of holes with clean cut edges, distinct from the frayed edges of mechanically damaged parts. Another objectionable substance often used in sizing is

paraffin wax, the object being to lubricate the sized threads for the weaving process. Tallow is the proper substance to employ for this purpose, but paraffin is used either because it is cheaper or in the form of adulterated tallow. Paraffin wax and similar unsaponifiable substances are not emulsified in the b. processes to which the goods are subjected preparatory to **bleaching** or dyeing. The wax is simply loosened, floats to the top of the kier and settles on the goods in the form of patches producing gray **water-resistant** stains which cannot be bleached or dyed. Sometimes the wax remains evenly distributed over the **cloth** without forming patches, in which case the fibers remain absolutely resistant to the calendaring operation and the **cloth** finished up quite limp. Mineral oil stains derived from the lubricating oil of the loom or other machinery are likewise objectionable, and it has been clearly demonstrated that mineral oil stains resist all known processes of **bleaching**, but it would appear that a mixt. of vegetable and mineral oils is not so harmful. In the discussion, P. Bean pointed out that the use of deliquescent chlorides is not confined to the object of facilitating the weaving operations.  $MgCl_2$  and  $CaCl_2$  are used illegitimately to increase the wt.; these chlorides attract excess of moisture, enabling the **cloth** to carry more "filling." "Yorkshire grease" has been mentioned as a substitute for tallow, but this is not always safe.

L82 ANSWER 68 OF 68 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1941:16337 CAPLUS  
 DN 35:16337  
 OREF 35:2631i,2632a-i,2633a  
 TI American Society for Testing Materials, Standards, 1940 Supplement. III.  
 Nonmetallic materials, general  
 SO 574 pp.  
 DT Book  
 LA Unavailable  
 CC 13 (Chemical Industry and Miscellaneous Industrial Products)  
 AB Standards issued or revised in 1940 are given for methods of sampling coal for analysis and of lab. sampling and analysis of coal and coke; Stoddard solvent; tests for distn. of gasoline, naphtha, kerosene and similar petroleum products; test for flash point by means of the Pensky-Martens closed tester; method of analysis of grease; tests for knock characteristics of motor fuels; test for pptn. no. of lubricating oils; test for unsulfonated residue of plant-spray oils; test for water in petroleum products and other bituminous materials; test for water and sediment in petroleum products by means of centrifuge; testing of shellac used for elec. insulation; testing of elec. insulating oils; tests for conducting paths in elec. slate; tests for accelerated aging of vulcanized rubber by the O-pressure method, and by the oven method; air pressure heat test of vulcanized rubber; tests for abrasion resistance of rubber compds.; dynamic tests for ply sepn. and cracking of rubber products; rubber gloves for elec. workers; textile-testing machines; definitions of terms relating to textile materials; specifications and tests for cotton goods for rubber and pyroxylin coating; terry toweling; tests and tolerances for cotton yarns and for hose and belt ducks; tests and tolerances for continuous-filament rayon yarns; test for fiber length

of wool; testing of pile floor covering; and testing of wool felt. Tentative standards issued or revised in 1940 are given for sampling coals classed according to ash content; gasoline; test for C residue of petroleum products; test for carbonizable substances in white mineral oil; test for distn. of plant-spray oils; test for dropping point of lubricating grease; test for gum stability of gasoline; test for vapor pressure of petroleum products; calcn. of viscosity index; flexible varnished tubing used in elec. insulation; phenolic laminated sheet for radio applications; testing of flexible varnished tubing used for elec. insulation; testing of solid filling and treating compds. used for elec. insulation; tests for dielec. strength of elec. insulating materials; sampling and testing of untreated paper used in elec. insulation; test for flammability of plastics; test for flow temps. of thermoplastic molding materials; test for n of transparent org. plastics; test for water absorption of plastics; method of chem. analysis of rubber products; tension testing of vulcanized rubber; test for changes in properties of rubber and rubber-like materials in liquids; tests for compression set, compression-deflection characteristics and phys. state of cure of vulcanized rubber; testing of rubber hose, automotive hydraulic brake hose and flat rubber belting; insulated wire and cable of rubber or rubber compd.; testing of rubber-insulated wire and cable; tests of textile **fabrics** and yarns for resistance to moths and of textile **fabrics** for resistance to water; definitions of terms relating to textile materials; asbestos yarns; testing of asbestos **cloth** and yarns; cotton and (or) wool blanketing; **bleached** wide cotton sheeting; test for apparent fluidity of dispersions of cellulose fibers in cuprammonium hydroxide; testing cotton fibers; tests and tolerances for glass yarn and for woven glass **fabrics**, tapes and tubular sleeving and braids; specifications and tests for fineness of wool tops; test for shrinkage of grease wool; methods of sampling paper and paper products; test for ash content of paper and paper products; qual. test for casein in paper; tests for .alpha.-, .beta.- and .gamma.-cellulose in paper; test for opacity of paper and paper products; test for paraffin content of waxed paper; test for starch in paper; olive-oil and palm-oil solid soaps; salt-water soap; Na sesquisilicate; tetrasodium pyrophosphate; methods of sampling and chem. analysis of special detergents ( $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$ ,  $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$ ,  $3\text{Na}_2\text{O} \cdot 2\text{SiO}_2 \cdot 11\text{H}_2\text{O}$  and  $\text{CO}_2$  in caustic soda); definitions of terms relating to soaps and other detergents; sampling plant or confined waters for industrial use; detn. of Ca, Mg, Cl and  $\text{SO}_4$  ions in industrial waters; detn. of total orthophosphate and calcn. of the resp. orthophosphate ions in industrial waters; method of reporting results of analysis of industrial waters; A. S. T. M. thermometers; designation of numerical requirements in standards; and definitions of terms relating to rheological properties of matter. Tentative revisions (submitted in 1940) of standards are given for lab. sampling and analysis of coal and coke; testing elec. insulating oils; test for accelerated aging of vulcanized rubber by the oxygen-pressure method; textile-testing machines; testing and tolerances for cotton yarns; and definition of terms relating to textile materials.